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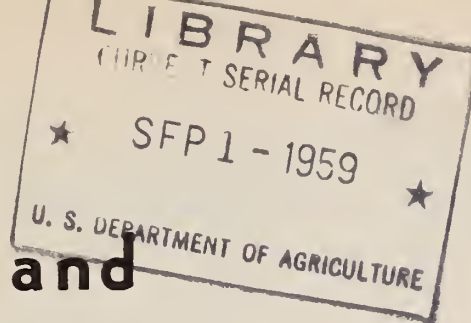
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# The MARKETING and TRANSPORTATION SITUATION

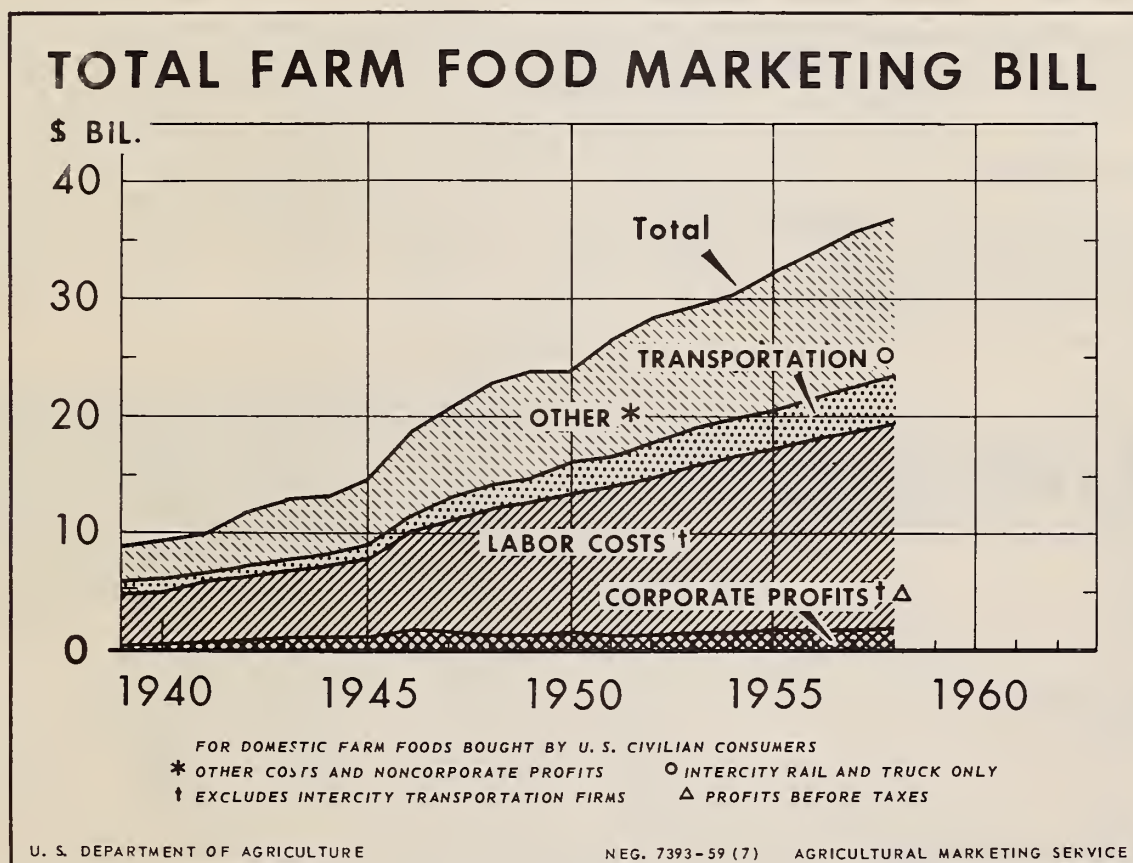
MTS-134



July 1959  
FOR RELEASE  
AUG. 5, P. M.



In this issue:  
Marketing Bill for Farm Food Products  
Indexes of Factory Production ... Food ...  
Geographic Structure of Milk Shipments ...  
... Heavier Loading of Rail Shipments ...  
Recent Changes in Rail Freight Rates ...



The total bill for marketing domestic farm food products bought by civilian consumers rose to \$36.9 billion in 1958 -- 64 percent higher than the average for 1947-49. This increase resulted more from rising marketing charges per unit of product handled than from expansion in volume of marketings. Increases in wage rates, transportation rates, and other cost rates of marketing firms caused most of the rise in unit marketing

charges; increased marketing operations per unit of product probably accounted for part.

Labor costs accounted for 47 percent of the total marketing bill in 1958, transportation charges for 11 percent, corporate profits (before taxes) for 6 percent, and other costs and noncorporate profits for 36 percent. These percentages had not changed significantly since 1947-49.

Published quarterly by  
AGRICULTURAL MARKETING SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

STATISTICAL SUMMARY OF MARKET INFORMATION

Item	Unit or base period	1958			1959	
		Year	Apr.-June	Oct.-Dec.	Jan.-Mar.	Apr.-June
<u>Farm-to-retail price spreads</u>						
Farm-food market basket: 1/						
Retail cost .....	Dol.	1,065	1,085	1,048	1,042	1,036
Farm value .....	Dol.	427	446	406	408	402
Farm-retail spread .....	Dol.	638	639	642	634	634
Farmer's share of retail cost .....	Pct.	40	41	39	39	39
Cotton: 2/						
Retail cost .....	Dol.	2.11	2.11	2.11	2.10	---
Farm value .....	Dol.	.32	.32	.32	.32	---
Farm-retail spread .....	Dol.	1.79	1.79	1.79	1.78	---
Farmer's share of retail cost .....	Pct.	15	15	15	15	---
Tobacco: 3/						
Retail cost .....	Dol.	3.70	---	---	---	---
Farm value .....	Dol.	.60	---	---	---	---
Federal and State excise taxes .....	Dol.	1.40	---	---	---	---
Farm-retail spread excluding excise taxes .....	Dol.	1.70	---	---	---	---
Farmer's share of retail cost .....	Pct.	16	---	---	---	---
<u>General economic indicators</u>						
Consumers' per capita income and expenditures: 4/						
Disposable personal income .....	Dol.	1,818	1,801	1,842	1,859	1,897
Expenditures for goods and services .....	Dol.	1,683	1,675	1,707	1,726	1,762
Expenditures for food .....	Dol.	387	390	387	389	---
Expenditures for food as percentage of disposable income .....	Pct.	21	22	21	21	---
		1958			1959	
		Year	May	Mar.	Apr.	May
Hourly earnings, production workers, manufacturing: 5/	Dol.	2.13	2.12	2.22	2.23	2.23
Hourly earnings of food marketing employees 6/	Dol.	1.98	1.98	2.05	2.05	2.06
Retail sales: 7/						
Food stores .....	Mil. dol.	4,190	4,159	4,320	4,292	4,398
Apparel stores .....	Mil. dol.	1,043	1,013	1,106	1,059	1,154
Manufacturers' inventories: 7/						
Food and beverage .....	Mil. dol.	4,687	4,759	4,797	4,870	4,944
Textile .....	Mil. dol.	2,557	2,584	2,463	2,482	2,465
Tobacco .....	Mil. dol.	1,874	1,880	1,876	1,868	1,873
Indexes of industrial production: 8/						
Food and beverage manufactures .....	1947-49=100:	115	114	119	120	121
Textiles and apparel .....	1947-49=100:	104	99	115	119	122
Tobacco manufactures .....	1947-49=100:	118	115	121	134	124
Index of physical volume of farm marketings .....	1947-49=100:	125	95	96	96	99
<u>Price indexes</u>						
Consumer price index 5/ .....	1947-49=100:	124	124	124	124	124
Wholesale prices of food 5/ .....	1947-49=100:	110	112	104	105	105
Wholesale prices of cotton products 5/ .....	1947-49=100:	88	88	90	90	91
Wholesale prices of woolen products 5/ .....	1947-49=100:	101	100	98	100	101
Prices received by farmers 2/ .....	1947-49=100:	92	94	90	90	90
Prices paid by farmers 2/ .....	1947-49=100:	114	115	115	115	115

1/ Average quantities of farm food products purchased per wage-earner and clerical-worker family in 1952

2/ Data for average family purchases in 1950 of 25 articles of cotton clothing and housefurnishings divided by number of pounds of lint cotton required for their manufacture; see U.S. Dept. Agr. Mktg. Res. Rpt. 277.

3/ Data for 4 tobacco products from 1 pound of leaf tobacco (farm-sales weight), weighted by leaf equivalent of current tax-paid withdrawals; preliminary data for the fiscal year beginning July 1958. 4/ Second quarter 1959 data are from preliminary estimates by the Council of Economic Advisers. Seasonally adjusted annual rates, calculated from Dept. of Commerce data. 5/ Dept. of Labor. 6/ Weighted composite earnings in food processing, wholesale trade, retail food stores, calculated from data of Dept. of Labor. 7/ Seasonally adjusted, Dept. of Commerce. Annual data for 1958 are on an average monthly basis. 8/ Seasonally adjusted, Board of Governors of Federal Reserve System. 9/ Converted from 1910-14 base. Data for Sept. 1952 and later months revised, Feb. 1959.



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THE MARKETING AND TRANSPORTATION SITUATION  
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Approved by the Outlook and Situation Board July 28, 1959

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SUMMARY

Retail prices of farm-produced food products averaged 4 percent lower in the second quarter this year than in the same period of 1958. About 90 percent of this decrease resulted from lower prices received by farmers and 10 percent from lower marketing charges. Most of the decrease in farm and retail prices came in the second half of 1958.

Prices of pork, frying chickens, eggs, oranges, grapefruit, and many of the fresh vegetables were much lower in the second quarter this year than a year earlier.

Charges for marketing farm food products were relatively stable in the first half of 1959 but averaged 1 percent higher than in the first half of last year. Costs of performing marketing operations probably have risen during the year. Wages, freight rates, and some other costs advanced.

Farmers received 39 cents of the dollar consumers spent for farm foods in the quarter just ended, the same as in the preceding three quarters, but 2 cents less than in the second quarter of last year.

Special Features in This Issue

The bill for marketing domestic farm food products bought by civilian consumers continued in 1958 its long-term upward trend. A rise from 1957 to 1958 in marketing charges per unit of product marketed accounted for about three-fourths of the increase in the marketing bill and expansion in the volume of marketings accounted for a fourth. An article in this issue discusses the factors back of the rise in the marketing bill and its major components (pp. 10-21).

Charges for processing domestic farm food products accounted for about a third of the farm food marketing bill in 1957. The second article in this issue presents indexes for measuring the production of factory processed domestic farm foods and discusses trends in these indexes (pp. 22-28).

Prices farmers receive for milk tend to increase with the distance between the market and areas of abundant supply. The third article describes the geographic structure of these prices (pp. 29-32).

Heavier loading of refrigerator cars may reduce costs of shipping several fresh commodities and will affect their transportation and marketing pattern (pp. 33-39).

The average level of rail freight rates for farm products rose slightly in 1958 but average rates for some commodities declined a little (p. 40).

#### FARM-RETAIL SPREADS FOR FARM FOOD PRODUCTS

##### Retail Cost Down 4 Percent from Record Level a Year Ago

The retail cost of the market basket of farm foods has declined in each quarter since it reached an alltime high of \$1,085 in the second quarter last year. <sup>1/</sup> (See table on p. 2.) At an average annual rate of \$1,036 in April-June 1959, it was slightly lower than in the preceding quarter and at its lowest point since the final quarter of 1957. The retail cost this year has remained fairly stable. Most of the drop since the peak in 1958 came in the second half of that year (table 1).

Each of the product groups in the market basket except dairy products and bakery and cereal products had a lower retail cost in the second quarter this year than in the same period of 1958 (table 11, p. 42). Poultry and eggs showed the largest percentage decline but fruits and vegetables accounted for a larger part of the decrease in the market basket retail cost. The retail costs of the meat products and fats and oils groups also showed significant decreases.

The retail cost of the poultry and eggs group in the second quarter of 1959 was down 12 percent from the first quarter. Three other groups decreased slightly and fruits and vegetables increased less than seasonally.

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<sup>1/</sup> The "market basket" contains the average quantities of farm-produced food products purchased for consumption at home per urban wage-earner family and clerical-worker family in 1952. Additional information concerning the contents of the market basket and methods of estimating market-basket data are given in "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741, 1957. The retail cost of all foods bought per family is more than the retail cost of the "market basket" of farm foods, which does not include imported foods, fishery products and other foods of nonfarm origin, or costs of meals purchased in public eating places.



Table 1.—The farm food market basket: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, 1947-59 <sup>1/</sup>

Year and month	Retail cost <sup>2/</sup>	Farm value <sup>3/</sup>	Farm-retail spread	Farmer's share
	Dollars	Dollars	Dollars	Percent
1947 .....	911	467	444	51
1948 .....	982	497	485	51
1949 .....	928	435	493	47
1947-49 average .....	940	466	474	50
1950 .....	920	432	488	47
1951 .....	1,024	497	527	49
1952 .....	1,034	482	552	47
1953 .....	1,003	445	558	44
1954 .....	986	421	565	43
1955 .....	969	395	574	41
1956 .....	972	390	582	40
1957 .....	1,007	401	606	40
1958 <sup>4/</sup> .....	1,065	427	638	40
<u>1958</u> :				
Jan. ....	1,042	422	620	41
Feb. ....	1,049	431	618	41
Mar. ....	1,075	456	619	42
Apr. ....	1,085	455	630	42
May ....	1,086	446	640	41
June ....	1,084	437	647	40
July ....	1,080	425	655	39
Aug. ....	1,065	416	649	39
Sept. ....	1,060	419	641	40
Oct. ....	1,053	410	643	39
Nov. ....	1,049	408	641	39
Dec. ....	1,042	400	642	38
<u>1959</u> :				
Jan. ....	1,048	411	637	39
Feb. ....	1,042	406	636	39
Mar. ....	1,036	407	629	39
Apr. ....	1,037	406	631	39
May ....	1,035	400	635	39

<sup>1/</sup> The farmer's share and index numbers of the retail cost, farm value, and farm-retail spread for the years 1913-56 are published in "Farm-Retail Spreads for Food Products," U.S. Dept. Agr. Misc. Pub. 741, 1957.

<sup>2/</sup> Retail cost of average quantities of farm foods purchased per urban wage-earner and clerical-worker family in 1952, calculated from retail prices collected by the Bur. Labor Statistics.

<sup>3/</sup> Payment to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

<sup>4/</sup> Preliminary estimates.

: Current data are given in the Statistical Summary, :  
: a monthly publication of the Agricultural Marketing Service.: :

Farm Value Declines 10 Percent  
Since Second Quarter Last Year

The farm value of the farm foods in the market basket decreased from an average annual rate of \$446 in the second quarter last year to \$402 in the quarter just ended. 2/ This reduction accounted for most of the drop in the retail cost of these foods during the same period. Most of the reduction in the farm value resulted from lower farm prices for hogs, frying chickens, eggs, and fresh fruits, but each of the major product groups except dairy products showed lower farm values (table 11, p. 42).

Most of the \$44 decrease in the farm value of the market-basket foods came in the second half of 1958, following a sharp rise in the first quarter last year.

The farm value of the market basket slid off 1 percent from the first to the second quarter this year, mainly because of decreases in prices farmers received for eggs and frying chickens. The farm value of the dairy products group showed about the usual seasonal decline. These decreases were partially offset by an 11-percent increase for fruits and vegetables.

Little Change in Farm-Retail Spread  
Since Second Quarter 1958

The spread between the retail cost and farm value of the market basket declined from an average annual rate of about \$639 in the second quarter last year to \$634 in the quarter just ended. 3/ Decreases in the farm-retail spreads for the fruits and vegetables group and fats and oils group more than offset increases for the other product groups (table 12, p. 43).

The farm-retail spread widened in the second and third quarters last year when the retail cost of the market basket lagged behind the rapidly declining farm value. But in the fourth quarter the decline in the farm value slackened and was exceeded by the drop in the retail cost. In the first quarter this year the retail cost continued to decline, although the farm value scarcely changed. Both the farm value and retail cost decreased slightly and by about the same amount from the first to the second quarter of this year, so the change in the spread was negligible. The spread averaged about 1 percent higher in the first half of this year than in the same period of 1958.

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2/ The farm value is the payment farmers received for the farm products equivalent to the foods in the market basket.

3/ The farm-retail spread or difference between the retail cost of the market basket and the farm value is an estimate of charges made by marketing agencies for assembling, processing, transporting, and distributing the products in the market basket. The farm-retail spread is also referred to as the marketing margin.



Costs of performing marketing functions may have continued upward during the year just ended. Average hourly wages of food marketing employees advanced about 4 percent but at least part of this increase probably was offset by improvements in productivity. Freight rates of railroads and probably those of many truck carriers were up slightly. Depreciation charges probably have continued to rise, reflecting improvements in plant and equipment. Costs of many of the items bought by marketing firms have risen but costs of a few have declined a little.

### The Farmer's Share

Farmers received 39 percent of the retail cost of the farm foods in the market basket in April-June 1959, the same share as in the three preceding quarters but 2 percentage points less than in April-June 1958. <sup>4/</sup> The farmer's share for most product groups was lower in the second quarter of 1959 than a year earlier.

### Big Drop in Retail Price and Farm Value of Pork

The farm value of pork declined 24 percent or 9.6 cents per pound (retail basis) from the second quarter of 1958 to the same period this year, reflecting a substantial increase in marketings of hogs. Since the average retail price dropped only 8.6 cents, the spread widened 6 percent. All the increase in the farm-retail spread was in the wholesale-retail segment as the live-wholesale segment decreased slightly (table 3). Both the farm value and retail price are expected to remain below last year's levels during the second half of 1959. Decreases in the farm value and retail price of pork accounted for most of the reduction in the farm value and retail cost of the meat products group during the year ended last quarter.

Retail prices of Choice grade beef were a little higher in the quarter just ended than a year earlier. But the farm value was unchanged, so the marketing spread increased slightly. The live-wholesale segment increased by about a fourth but the wholesale-retail segment was scarcely changed (table 2).

The farm value and retail price of lamb were a little lower in April-June 1959 than in the same period of 1958 and the marketing spread was a little wider.

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<sup>4/</sup> Estimates of the division of the retail cost between farmers and marketing agencies are based on concurrent prices at the farm and retail levels, except for sugar and processed fruits and vegetables. During a period of rising prices, the farmer's share calculated on this basis is somewhat larger than the share derived by comparing prices received by farmers for particular lots of products with prices paid by consumers for the same lots after they have moved through the marketing system. The reverse is true in periods of declining prices.



Table 2.- Beef (Choice grade): Live-wholesale and wholesale-retail spreads, by quarters, 1958-59 <sup>1/</sup>

Quarter	Live-wholesale (per 100 pounds live weight)					Wholesale-retail (per 100 pounds carcass weight)		
	Price of steers 2/	Wholesale value			Spread	Wholesale price 4/	Retail value 5/	Spread
		Carcass 3/	Byproducts	Total				
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1958								
Jan.-Mar. ...	27.09	27.36	2.17	29.53	2.44	46.37	63.04	16.67
Apr.-June ...	28.46	27.98	2.40	30.38	1.92	47.43	66.24	18.81
July-Sept. ...	26.39	26.64	2.35	28.99	2.60	45.16	65.04	19.88
Oct.-Dec. ...	26.81	26.67	2.34	29.01	2.20	45.20	64.80	19.60
Average ...	27.19	27.16	2.32	29.48	2.29	46.04	64.78	18.74
1959								
Jan.-Mar. ...	27.96	28.04	2.41	30.45	2.49	47.53	6/66.40	6/18.87
Apr.-June 7/	28.83	28.30	2.90	31.20	2.37	47.96	66.80	18.84

<sup>1/</sup> Quarterly data for 1949-55 are published in "Beef Marketing Margins and Costs," U.S. Dept. Agr. Misc. Pub. 710, Feb. 1956, tables 1 and 3.

<sup>2/</sup> Weighted average of price at 21 leading public stockyards in 1958, 20 in 1959.

<sup>3/</sup> Wholesale carcass value is 59 percent of average wholesale price of 100 pounds of Choice grade carcass beef.

<sup>4/</sup> Weighted average of prices of Choice grade carcass beef in New York, Chicago, Los Angeles, San Francisco, and Seattle.

<sup>5/</sup> Calculated from average retail prices of beef cuts in urban areas, published by Bur. Labor Statistics. The retail value per 100 pounds carcass weight is 80 percent of average retail cost of 100 pounds of retail cuts, because about 20 pounds of a 100-pound carcass is fat, bone, and trim which is sold by retailers at nominal prices.

<sup>6/</sup> Revised.

<sup>7/</sup> Preliminary.

Table 3.- Pork: Live-wholesale and wholesale-retail spreads by quarters, 1958-59 <sup>1/</sup>

Quarter	Live-wholesale (per 100 pounds live weight)			Wholesale-retail (per 100 pounds major cuts)		
	Price of hogs <sup>2/</sup>	Wholesale value <sup>3/</sup>	Spread	Wholesale value <sup>4/</sup>	Retail value <sup>5/</sup>	Spread
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1958						
Jan.-Mar. ....	20.59	26.19	5.60	48.66	62.85	14.19
Apr.-June ....	22.65	28.11	5.46	51.90	66.04	14.14
July-Sept. ....	21.85	27.74	5.89	51.28	67.24	15.96
Oct.-Dec. ....	18.97	24.74	5.77	45.47	61.99	16.52
Average ....	21.02	26.70	5.68	49.33	64.53	15.20
1959						
Jan.-Mar. ....	16.66	22.17	5.51	41.61	6/58.86	6/17.25
Apr.-June <sup>7/</sup> ...	16.85	21.96	5.11	41.71	57.93	16.22

<sup>1/</sup> Quarterly data for 1949-55 are published in "Pork Marketing Margins and Costs," U.S. Dept. Agr. Misc. Pub. 711, Apr. 1956, tables 1 and 2.

<sup>2/</sup> Average price of 200-220 pound barrows and gilts, Chicago.

<sup>3/</sup> Wholesale value at Chicago of 71 pounds of pork and lard obtained from 100 pounds of live hog.

<sup>4/</sup> Wholesale value of 100 pounds of major pork cuts at Chicago computed from Livestock Market News and National Provisioner price quotations of individual cuts.

<sup>5/</sup> Calculated from average retail prices of major pork cuts in urban areas, published by Bur. Labor Statistics.

<sup>6/</sup> Revised.

<sup>7/</sup> Preliminary.



Sharp Decrease in Prices of Chickens and Eggs

Prices farmers received for eggs dropped 27 percent from the first to the second quarter this year, three times the normal seasonal decline, and retail prices also made a larger than seasonal decline. But the farm-retail spread made only about half the usual seasonal decrease. Compared with levels a year earlier, the farm value in the second quarter was down 29 percent and the retail price 19 percent but the spread had increased by 4 percent. Both farm and retail prices were at the lowest levels since early in World War II. Production of eggs was 5 percent larger in the first half of 1959 than in the same period of 1958.

The retail price of frying chickens in the second quarter this year was 13 percent below a year earlier, the farm value was down 21 percent, and the spread decreased 2 percent. The retail price was the lowest in the 11 years for which records are available. Production of frying chickens in the first half of this year exceeded the previous record.

Prices of eggs and frying chickens turned upward after mid-June of this year.

Decrease in Retail Cost, Farm Value,  
and Spread for Fruits and Vegetables

The retail cost, farm value, and farm-retail spread of the fruits and vegetables group each decreased 8 percent from the second quarter last year to the like period of 1959. Prices at both farm and retail levels were sharply lower for oranges, grapefruit, and several fresh vegetables than the relatively high prices of a year earlier. Unfavorable weather last year curtailed supplies of these products. Prices received by farmers for onions and potatoes, however, were up sharply from last year, reflecting smaller supplies. At the retail level, prices of onions were up but prices of potatoes were down.

:	:	
:	:	
:	REVISED MARKET-BASKET DATA	:
:	:	:
:	:	:
:	Revised series of farm-retail spreads for apples,	:
:	:	:
:	frying chickens, frozen green beans, and rolled oats are	:
:	:	:
:	given in tables 14-17, pp. 45-47.	:
:	:	:



## THE MARKETING BILL FOR FARM FOOD PRODUCTS

:  
: The volume of domestic farm foods bought by civilian :  
: consumers in this country has grown almost steadily and in :  
: recent years marketing charges per unit have risen even :  
: more rapidly. Together, these factors have raised the :  
: total marketing bill more than three-fifths above its :  
: 1947-49 level. Most of the rise in unit marketing charges :  
: was caused by increases in wages, salaries, transportation :  
: charges, prices of containers, packaging materials, machin- :  
: ery, and other items bought by marketing firms. Profits :  
: per unit of product marketed also have risen. Farmers' :  
: total receipts from these food products have risen much :  
: less than the marketing bill, and the rise has resulted :  
: entirely from the increase in marketings. Prices farmers :  
: received for these products averaged lower in 1958 than in :  
: 1947-49. :  
:

The bill for marketing farm food products bought by civilian consumers in this country totaled \$36.9 billion in 1958 — about 4 percent more than in the preceding year (table 4). Since 1937, the total farm food marketing bill has risen each year except in 1950. The largest year-to-year increase came in 1946 when substantial increases in the volume of products marketed and in the average unit marketing charge boosted the marketing bill 23 percent above the 1945 level. Unit marketing charges advanced sharply following removal of World War II price ceilings in 1946. During the last decade, year-to-year gains averaged about 5 percent. The 1958 bill was about 64 percent larger than the average for 1947-49.

This total marketing bill is the difference between the total civilian expenditures for domestic farm-produced food products and the farm value or payment farmers received for the equivalent farm products. It is an estimate of the total charges for all the marketing services performed from the time products are sold by farmers until they are bought by consumers. <sup>1/</sup> The total marketing bill does not include farm products that are exported, used for nonfood purposes, or consumed on farms where they are produced.

The farm value of the farm products covered by the total marketing bill increased about 7 percent from 1957 to 1958, as a result of advances in prices received by farmers and a slight increase in marketings. The 1958 total of \$20.8 billion was 14 percent higher than the average for 1947-49. But, unlike the marketing bill, the farm value has not risen steadily.

<sup>1/</sup> Another estimate of marketing charges — the farm-retail marketing bill — is for the same total quantity of food products, but quantities sold in the form of meals in restaurants and other eating places are valued in terms of retail food store prices. The farm-retail marketing bill is considered in a later section of this article. The difference between the total marketing bill and the farm-retail marketing bill was explained more fully in the Nov. 1958 issue of this Situation (MTS-131).



Table 4.—The total marketing bill, farm value, and consumer expenditures for domestic farm food products bought by civilians, United States, 1929-58

Year	Total marketing bill 1/	Farm value	Civilian expendi- tures for farm foods	Year	Total marketing bill 1/	Farm value	Civilian expendi- tures for farm foods
	Billion dollars	Billion dollars	Billion dollars		Billion dollars	Billion dollars	Billion dollars
1929	9.7	7.2	16.9	1945	14.9	12.6	26.8
1930	9.9	6.3	16.2	1946	18.3	15.7	33.5
1931	8.6	4.7	13.3	1947	20.7	18.7	39.4
1932	7.5	3.4	10.9	1948	22.9	19.3	42.2
1933	7.3	3.6	10.9	1949	23.9	16.9	40.8
1934	7.5	4.3	12.1	1947-49 av.	22.5	18.3	40.8
1935	7.3	5.0	12.6				
1936	8.2	5.8	14.0	1950	23.9	17.6	41.5
1937	8.1	6.0	14.1	1951	26.4	20.0	46.4
1938	8.4	5.2	13.6	1952	28.3	19.9	48.2
1939	8.6	5.2	13.8	1953	29.3	19.0	48.3
				1954	30.4	18.4	48.8
1940	9.1	5.6	14.7	1955	32.2	18.3	50.5
1941	9.9	7.1	17.0	1956	34.0	18.7	52.7
1942	11.7	9.3	21.0	1957	35.6	19.5	55.1
1943	12.6	11.4	23.8	1958 2/	36.9	20.8	57.7
1944	13.3	11.6	24.4				

1/ Difference between civilian expenditures and farm value except that Federal processor taxes have been deducted for 1933-35 and allowances for Federal Government payments to processors have been added for 1943-46.

2/ Preliminary.

Moreover, its rise since 1947-49 has resulted entirely from growth in the volume of products marketed, as prices farmers received for these products averaged lower in 1958 than in 1947-49. From 1952 until 1956 declining farm prices more than offset the effect on the farm value of an expanding volume of products marketed.

Expenditures by civilian consumers in this country for domestically produced farm food products increased 5 percent from 1957 to 1958. The 1958 total of \$57.7 billion was 41 percent higher than the 1947-49 average. These expenditures have risen each year since 1938, except in 1949. In several years, growth in the volume of marketings more than offset declines in the average retail cost per unit.

Farmers received about 36 percent of the consumer's expenditures for food in 1958, compared with about 45 percent in 1947-49. Thus, the share received by marketing agencies increased from 55 percent in 1947-49 to 64 percent in 1958.



Unit Marketing Charges and Volume Components  
of the Marketing Bill

Rising marketing charges per unit of product handled are estimated to have accounted for about three-fifths of the increase in the total marketing bill from 1947-49 to 1958 and expanding volume of products accounted for about two fifths. About three-fourths of the advance in the marketing bill from 1957 to 1958 resulted from higher unit marketing charges and one-fourth from growth in marketings.

Advancing Unit Marketing Charges

Most of the rise in unit marketing charges from 1947-49 to 1958 was caused by increases in wage rates, salaries, transportation charges, and prices of machinery and equipment, containers and packaging materials, fuel, and other items bought by marketing firms. Profits per unit also rose.

An increase in marketing operations per unit of product handled probably caused part of the rise in unit marketing charges. The marketing system performs more sorting, grading, transportation, refrigeration, processing, packaging, and other marketing operations per unit of product handled now than it did 10 years ago.

The net increase in marketing operations, however, may not have been as significant a factor in boosting the marketing bill as is suggested by frequently cited developments. While some marketing services have been increased, others have been reduced. The rapid growth in the output of some of the newer, highly processed convenience foods has received much attention. A net increase in processing probably has resulted although many of these foods have been substituted for less highly processed foods. But the newer convenience foods still account for only a minor part of the volume of food products marketed. Furthermore, costs of the additional processing may be offset by savings in other parts of the marketing process. It costs less, for example, to market a box of oranges in the form of frozen concentrated juice than as fresh oranges. <sup>2/</sup> Savings in transporting and handling frozen concentrate rather than fresh oranges more than compensate for the cost of processing. Similarly, the increase in consumer-size packaging by food manufacturers has reduced handling costs in retail stores. The saving resulting from transferring the packaging operation from the store to the manufacturing plant, where it is performed mainly by machines, has at least partially offset the cost of the container. Self-service has continued to replace clerk-service in retail food stores, and fewer stores provide credit and delivery services. Milk dealers in most cities have substituted 3-day-a-week delivery of milk to homes for every-other-day delivery.

A rapid increase in away-from-home eating raised the average marketing charge per unit during the late 1930's and in the first half of the 1940's. Since 1945 away-from-home eating apparently has increased slowly. Though many people eat out more often now, a larger proportion of the population lives in households having food-preparing facilities, so the proportion eating some of their meals at home probably has increased.

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<sup>2/</sup> John K. Hanes, "Marketing Margins for Fruits and Vegetables," The Marketing and Transportation Situation, Jan. 1959.



### Expansion in Volume

The volume of domestic farm products bought by civilian consumers -- the products covered by the marketing bill -- was a little larger in 1958 than in 1957. Purchases by civilian consumers increased sharply in 1946 when many members of the Armed Forces returned to civilian status. Since that year the volume has risen slowly and almost steadily. The 1958 volume was about one-fourth larger than the average for 1947-49.

Purchases of domestic farm foods by civilian consumers increased by a greater percentage from 1947-49 to 1958 than the civilian population. During this period the population became more dependent on purchased foods. Many farm families who had produced a considerable part of their food supply moved to nonfarm homes. The number of farm families decreased by about one-fifth from 1948 to 1958. Furthermore, both farm and nonfarm families produced less of their own food in 1958 than in 1947-49.

The volume of farm foods purchased by consumers also increased by a greater percentage than the production of these products. Because of the decline in the number of farm families and the increasing use by farm families of purchased food, the total volume of food products farmers kept for their own use declined by about 30 percent from 1947-49 to 1958. Thus, marketings increased more than production. Further, farmers probably reduced the proportion of their output marketed directly to consumers during this period. The volume of milk farmers sold directly to consumers declined by about one-half. Direct sales of fresh fruits and vegetables, poultry and eggs, and other products also may have decreased. Thus, the marketing system handled an increasing part of the production. From 1947-49 to 1958, the volume of products covered by the marketing bill increased by about one-fourth compared with the increase of about one-fifth in the production of farm food products.

### Cost and Profit Components of the Total Marketing Bill

This section and the figures in table 5 relate to the components of the total marketing bill. Similar data published in earlier articles on the marketing bill were for the smaller farm-retail marketing bill. <sup>3/</sup>

#### Labor Costs

The labor cost component of the total marketing bill -- the cost of labor employed by marketing firms in handling domestic farm foods bought by civilian consumers in this country -- rose from \$17.0 billion in 1957 to \$17.5 billion in 1958. (See cover chart and table 5.) This cost has risen every year since 1938. In 1958 it was 65 percent higher than the average for 1947-49. Labor costs accounted for 47 percent of the total marketing bill in 1958, the same proportion as in 1947-49.

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<sup>3/</sup> Estimates of components of the farm-retail marketing bill will not be published in the future but they will be furnished to readers who request them from the Mktg. Inform. Div., Agr. Mktg. Serv.

Table 5.--Labor, transportation, corporate profits, and other costs for marketing farm food products, United States, 1939-58 1/

Year	Labor <u>2/</u>	Rail and truck transportation <u>3/</u>	Corporate profits <u>4/</u>		Other <u>5/</u>	Total marketing bill
			Before taxes	After taxes		
	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars
1939 .....	4.3	1.0	0.3	0.3	3.0	8.6
1940 .....	4.5	1.1	.4	.3	3.1	9.1
1941 .....	4.9	1.2	.6	.4	3.2	9.9
1942 .....	5.3	1.0	.8	.4	4.6	11.7
1943 .....	5.5	1.0	1.1	.5	5.0	12.6
1944 .....	6.0	1.1	1.1	.5	5.1	13.3
1945 .....	6.6	1.3	1.1	.5	5.9	14.9
1946 .....	8.3	1.6	1.7	1.1	6.7	18.3
1947 .....	9.7	2.0	1.5	1.0	7.5	20.7
1948 .....	10.8	2.2	1.3	.8	8.6	22.9
1949 .....	11.3	2.3	1.3	.7	9.0	23.9
1947-49 av. :	10.6	2.2	1.4	.8	8.3	22.5
1950 .....	11.9	2.6	1.6	.9	7.8	23.9
1951 .....	12.7	2.6	1.3	.6	9.8	26.4
1952 .....	13.5	3.0	1.4	.6	10.4	28.3
1953 .....	14.3	3.2	1.5	.7	10.3	29.3
1954 .....	15.0	3.4	1.5	.7	10.5	30.4
1955 .....	15.5	3.2	1.8	.9	11.7	32.2
1956 .....	16.3	3.5	1.8	.9	12.4	34.0
1957 .....	17.0	3.6	1.9	.9	13.1	35.6
1958 <u>6/</u> .....	17.5	4.0	2.1	1.0	13.3	36.9

1/ Relate only to domestic farm foods bought by civilian consumers and not to that sold to the Armed Forces or exported.

2/ Does not include the cost of labor employed in intercity for-hire transportation because payments made for transportation also are compared with the total marketing bill.

3/ Does not include local hauling; charges for intercity transportation by water and air are a part of the "other" or residual component of the marketing bill.

4/ Does not include profits of unincorporated firms or firms engaged in intercity transportation.

5/ Includes other costs such as fuel, electric power, containers, packaging materials, air and water transportation, interest on borrowed capital, taxes other than those on income, and noncorporate profits.

6/ Preliminary.



Labor costs include wages and salaries paid by assemblers, processors, wholesalers, and retailers, including restaurants and other eating places, but it does not include labor costs of railroads and other for-hire carriers. 4/ It also includes tips and supplements to wages and salaries, such as payments by employers to social insurance funds, private pension and welfare funds, compensation for injuries, and other "fringe benefits." And it includes the imputed costs of labor performed by proprietors and family workers not receiving stated wages or salaries.

Increases in labor costs per unit of product handled caused more than half of the rise in the labor cost component from 1947-49 to 1958; expansion in the volume of products marketed accounted for the remainder. Labor costs per unit advanced mainly because of increases in wage rates, salaries, and supplements to wages and salaries. Part of the rise may have resulted from an increase in marketing services per unit of product handled.

Earnings of employees of food processors, wholesalers, and retailers averaged \$1.98 per hour in 1958 compared with \$1.90 in 1957 and \$1.21 in 1947-49. Labor costs per unit of product marketed, however, have risen less than average hourly earnings because labor time per unit has decreased. It is estimated that labor cost per unit of product marketed increased 31 percent from 1947-49 to 1958, compared with an increase of 65 percent in average hourly earnings (table 6). 5/

### Transportation Bill

Marketing firms paid railroads and truck carriers an estimated \$4.0 billion in 1958 for transporting (other than local hauling) the food products covered by the marketing bill (table 5). The 1957 total was \$3.6 billion. The increase from 1957 to 1958 resulted mainly from higher freight rates. In February 1958, the Interstate Commerce Commission authorized small increases in rail freight rates on most agricultural products.

The 1958 transportation bill was 82 percent higher than the 1947-49 average. Rate increases accounted for the major part of the rise; increases in volume hauled accounted for a smaller part. Also, average length of haul for some fresh fruits and vegetables and perhaps for some other products increased. The transportation components made up 11 percent of the marketing bill in 1958, compared with 10 percent in 1947-49.

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4/ Many establishments that handle farm food products also handle nonfarm foods and other products. Their total labor cost, therefore, cannot be included in these estimates. In general, the proportion included is the percentage of the establishment's total sales or output represented by farm food products.

5/ These percentages are based on data which include workers employed in intercity transportation of food products as well as workers in assembly, processing, wholesale, and retail establishments, but inclusion of the transportation workers probably does not affect the percentages significantly.

**Table 6.--Average hourly earnings and labor costs, profits before taxes, and marketing charges per unit of product for marketing food products, United States, 1939-58 <sup>1/</sup>**

(Index numbers 1947-49 = 100)

Year	Hourly earnings <sup>2/</sup>	Unit labor cost <sup>3/</sup>	Profit :(before taxes): per unit of product <sup>4/</sup>	Unit marketing charges <sup>5/</sup>
1939 .....	46	52	33	59
1940 .....	47	53	34	58
1941 .....	51	57	53	59
1942 .....	56	58	72	65
1943 .....	61	62	94	69
1944 .....	65	66	95	70
1945 .....	70	70	88	70
1946 .....	82	79	127	78
1947 .....	93	91	111	94
1948 .....	99	102	96	102
1949 .....	108	107	93	104
1947-49 average :	100	100	100	100
1950 .....	113	108	115	103
1951 .....	119	116	97	111
1952 .....	125	118	95	116
1953 .....	132	121	101	118
1954 .....	138	123	94	119
1955 .....	142	122	110	121
1956 .....	149	123	108	123
1957 .....	158	128	114	128
1958 <sup>6/</sup> .....	165	131	121	135

<sup>1/</sup> Relates only to domestic farm-produced foods bought by civilian consumers in this country and not to that sold to the Armed Forces or exported.

<sup>2/</sup> Hourly earnings estimated by dividing total labor cost by total man-hours for all workers. These data include proprietors and family workers not receiving stated remuneration and workers engaged in intercity rail and truck transportation.

<sup>3/</sup> Unit labor cost is the quotient of the indexes of total labor cost and of volume of farm food products marketed to civilian consumers. The index of farm food products marketed was constructed by weighting the quantities sold by 1947-49 average retail prices.

<sup>4/</sup> Profit per unit of product is the quotient of the index of total corporate profits from marketing farm foods produced and consumed in the United States and the index of the volume of farm food products marketed.

<sup>5/</sup> Calculated from annual average spreads between retail cost of a constant market basket of farm food products and payments received by farmers for equivalent farm products; margin has been adjusted for subsidies to marketing firms. The farm-retail spreads are published in this Situation, table 1, p. 5.

<sup>6/</sup> Preliminary.



Charges for the protective services, heating and refrigeration, are included in the transportation bill, as well as rail and truck freight charges. However, the bill does not include charges for transportation by water or air or charges for local hauling. These charges are a part of the "other" or residual component of the marketing bill.

### Corporate Profits

Profits earned by corporations from marketing the products covered by the marketing bill amounted, before taxes on income, to \$2.1 billion in 1958, up \$200 million from the preceding year (table 5). Before-tax profits in 1958 were 50 percent larger than the average for 1947-49. Profits have fluctuated more than the other components of the marketing bill. Before-tax profits rose to a peak of \$1.7 billion in 1946, when sales and prices of food products were rising and costs lagged. But by 1948, they had declined to \$1.3 billion. They jumped to \$1.6 billion in 1950 when prices rose rapidly in the second half of the year. The peaks in those years were not surpassed until 1955. Since 1945, profits after taxes have represented from 43 to 67 percent of profits before taxes. The proportion in recent years has been about 50 percent.

Corporate profits before income taxes made up about 6 percent of the marketing bill in 1958, the same percentage as in 1947-49. This proportion rose from about 3 percent before World War II to a record 9 percent in 1946. In the 12 years since 1946 it has varied from 5 percent to 7 percent.

Corporate profit (before taxes) per unit of product marketed has more than tripled during the last 20 years (table 6). Year-to-year fluctuations often have been wide. The index of profit per unit rose from 33 (1947-49=100) in 1939 to a record 127 in 1946, then declined to the post-World War II low of 93 in 1949. Since 1949 it has varied between 94 in 1954 and 121 in 1958.

Total corporate profits earned from marketing the farm food products covered by the marketing bill have increased as capital invested by marketing corporations has grown. Marketing firms have made large investments since World War II to handle the expanding volume of products, to improve efficiency, and to produce and distribute new products. The reduction in labor time per unit of product marketed could not have been achieved without huge outlays on new plants and equipment. Rising costs of plant and equipment during the postwar era have upped capital requirements. Rising prices and wage rates also have increased working capital needs. More money is needed for inventory, payroll, and other recurring expenditures. Corporations have borrowed additional capital and have added to equity capital by investing profits and by selling stock. Additions to equity capital are reflected in net worth. It is estimated that the net worth of corporations manufacturing food and kindred products climbed more than 30 percent from 1948 to 1956 while net worth of those in the retail food trade jumped 114 percent. 6/

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6/ These estimates were based on data published by the Internal Revenue Service in Statistics of Income, 1956-57, Corporation Income Tax Returns, pp. 122 and 126.



Adequate data are not available on which to base an estimate of profits of unincorporated firms earned from marketing farm food products. Profits of these firms are a part of the "other" component of the marketing bill. Unincorporated firms probably accounted for less than 10 percent of the profits made from manufacturing food products. According to the 1954 Census of manufactures, establishments operated by unincorporated firms accounted for 11 percent of the total value added by manufacture in the food and kindred products manufacturing industry. Unincorporated firms in 1954 accounted for 41 percent of the total sales of assembling and wholesaling firms handling food products, for 55 percent of the sales made by retail food stores, and for 71 percent of those made by eating places. <sup>7/</sup> Profits of these unincorporated firms probably were a much smaller proportion of the total than were their sales. For many unincorporated firms net profits provide scarcely more than a return for the labor of proprietors and family workers not receiving stated wages and salaries.

Profits of Leading Food-Marketing Corporations.—The average ratio of profits to sales for a group of 46 leading food processing corporations rose in 1958 after declining in 1957 (table 7). Profits as a percentage of stockholders' equity for these and a few additional firms also averaged slightly higher in 1958 than in 1957. However, baking companies and dairy products companies had slightly lower ratios of profits to stockholders' equity last year than in 1957.

The ratio of profits (after taxes) to sales for eight leading retail food store chains remained the same in 1958 as in 1957, but the ratio of profits to stockholders' equity declined slightly. Since 1950 only the 1957 ratio of profits to stockholders' equity was higher than that for 1958.

In the three recent recession years, 1949, 1954, and 1958, the average profit ratios for all manufacturing corporations declined. Profit ratios of leading corporations engaged in food processing also were down in 1949 and 1954 but in 1958 their ratios increased. However, profit ratios of these companies had declined in 1957.

#### Other Costs and Noncorporate Profits

Other costs and noncorporate profits, the residual in the marketing bill, amounted to \$13.3 billion in 1958, compared with \$13.1 billion in 1957 and the 1947-49 average of \$8.3 billion. This component made up about 37 percent of the marketing bill in 1947-49, 37 percent in 1957, and 36 percent in 1958. It includes costs of fuel, electric power, containers, packaging materials, intercity transportation other than by rail and truck, depreciation, insurance, rents, interest on borrowed capital, taxes other than those on income, and other items not included in the labor, transportation, and profits components. It also includes the profits unincorporated firms made from marketing the products covered by the marketing bill.

#### Farm-Retail Marketing Bill

The farm-retail marketing bill includes all domestic farm-produced food products bought by civilian consumers in this country — the same

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<sup>7/</sup> Percentages calculated from data published in the 1954 Census of Business.



Table 7.--Net profits (less provision for taxes on income) as percentage of stockholders' equity and as percentage of sales, leading food and tobacco companies, 1935-58

Year	Food processing companies									
	8	7	11	5	10	10	51	5	8	5
	baking companies	grain mill products companies	meat packers	canning companies	dairy products companies	miscellaneous food companies	combined companies	wholesale food distributors	retail food chains	tobacco companies
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Profits as percentage of stockholders' equity 2/										
Average :										
1935-39 :	8.1	9.7	3.6	5.6	7.9	9.8	7.4	---	8.4	13.9
1940 ...:	7.9	9.8	5.4	6.6	8.7	9.2	7.8	---	9.7	14.2
1941 ...:	7.6	9.5	8.6	10.5	11.1	10.8	9.7	---	9.4	12.3
1942 ...:	9.5	8.0	8.1	8.4	11.3	8.9	9.0	---	7.4	11.0
1943 ...:	9.3	10.2	7.9	8.6	11.5	9.2	9.3	---	7.8	10.4
1944 ...:	8.7	10.3	7.2	9.1	10.1	8.3	8.5	11.2	8.2	9.7
1945 ...:	10.0	10.9	5.2	10.2	10.0	8.1	8.2	12.7	8.2	9.2
1946 ...:	18.3	13.2	9.9	18.4	17.0	12.6	13.6	27.3	18.7	11.4
1947 ...:	15.6	15.7	3/12.6	13.4	13.2	14.6	3/13.9	18.8	17.8	12.6
1948 ...:	17.6	14.6	5.6	9.6	12.5	13.5	11.3	16.0	16.2	14.8
1949 ...:	16.5	13.8	3/3.7	5.8	14.5	10.5	3/9.9	12.5	15.7	15.2
1950 ...:	15.5	13.4	5.9	15.3	13.3	12.6	11.5	10.0	14.0	13.5
1951 ...:	11.7	11.0	3/5.0	6.8	10.3	9.0	8.5	9.4	10.1	9.9
1952 ...:	12.1	11.0	3/3.7	7.5	9.9	9.0	3/8.2	5.4	10.0	9.5
1953 ...:	12.3	10.7	6.6	6.6	11.1	9.3	9.2	7.1	11.4	10.1
1954 ...:	11.3	12.4	2.7	7.8	3/12.2	9.9	8.8	7.5	11.3	10.6
1955 ...:	11.4	12.4	6.5	10.1	12.0	10.4	10.1	6.7	11.2	12.0
1956 ...:	11.4	11.7	6.9	8.2	12.1	3/11.2	10.2	7.6	13.1	12.1
1957 ...:	11.8	12.8	3/3.9	5.9	3/11.8	11.4	3/9.5	7.6	14.2	12.8
1958 4/ :	11.5	5/	4.2	5/	11.5	12.6	10.1	5/	13.8	14.6
Year	Food processing companies									
	7	4	11	4	10	10	46	5	8	5
	baking companies	grain mill products companies	meat packers	canning companies	dairy products companies	miscellaneous food companies	combined companies	wholesale food distributors	retail food chains	tobacco companies
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Profits as percentage of sales										
Average :										
1935-39 :	7.1	3.8	0.9	3.1	3.1	8.6	3.0	---	1.5	9.1
1940 ...:	6.3	4.6	1.4	3.5	3.2	8.0	3.2	---	1.5	8.4
1941 ...:	5.3	3.5	1.7	3.9	3.4	7.8	3.2	---	1.2	6.5
1942 ...:	4.8	2.6	1.2	3.1	2.9	5.6	2.4	---	.9	5.1
1943 ...:	4.0	2.2	1.1	3.5	2.8	5.0	2.2	---	1.0	4.3
1944 ...:	3.3	2.3	1.0	3.3	2.4	5.0	2.0	0.9	1.0	4.0
1945 ...:	3.6	2.6	.9	3.8	2.3	4.0	2.0	1.0	1.0	3.8
1946 ...:	6.0	2.8	1.7	6.1	3.5	6.0	3.3	2.2	1.8	4.0
1947 ...:	4.5	2.9	3/1.4	5.0	2.6	5.6	3/2.6	1.8	1.4	4.3
1948 ...:	4.9	3.3	.6	3.7	2.5	5.5	2.2	1.8	1.3	5.0
1949 ...:	5.0	3.6	.5	2.4	3.3	4.8	2.1	1.5	1.4	5.4
1950 ...:	4.9	3.1	.8	5.3	3.2	5.3	2.5	1.2	1.3	5.1
1951 ...:	3.5	2.3	.6	2.5	2.2	3.7	1.7	1.1	.9	3.8
1952 ...:	3.5	2.5	.4	2.7	2.1	3.6	1.6	.7	.8	3.4
1953 ...:	3.5	2.5	.8	2.3	2.3	3.6	1.9	1.0	1.0	3.8
1954 ...:	3.4	2.9	.3	2.8	2.6	3.8	1.8	1.0	1.0	4.3
1955 ...:	3.4	3.1	.8	3.6	2.6	4.0	2.2	.9	1.0	4.9
1956 ...:	3.2	2.9	.8	2.9	2.6	4.0	2.2	1.0	1.1	5.0
1957 ...:	3.3	3.4	.5	2.2	3/2.6	4.1	3/2.1	.9	1.2	5.2
1958 4/ :	3.3	5/	.5	5/	2.6	4.5	2.2	5/	1.2	5.7

1/ Includes sugar and corn refining companies, processors of vegetable oils, and companies manufacturing a wide variety of packaged foods. 2/ Ratio of net profits to average of stockholders' equity at the beginning and end of the year. Stockholders' equity is excess of total balance sheet assets over liabilities. 3/ Revised. 4/ Preliminary. 5/ Not available.

food products covered by the total marketing bill. But the farm-retail marketing bill is the difference between the farm value of these products and their value in terms of retail food store prices. Unlike the total marketing bill, it does not include the extra costs of food eaten in restaurants and other eating places or any allowance for marketing charges saved by purchasing at less than retail prices.

From 1937 to 1945 the total marketing bill increased faster than the farm-retail bill because of a fivefold gain in the extra costs of services for food consumed in eating places, but the farm-retail bill increased more rapidly in 1946 and 1947. Since 1947 both have risen at about the same rate.

Farm-retail marketing-bill data but not total marketing-bill data are available for product groups (table 8). Restaurant service costs for individual product groups cannot be estimated accurately because data on the flow of individual foods through eating places are not available.

### Product Groups

Most product groups accounted for about the same proportion of the farm-retail marketing bill in 1958 as in 1947-49. Only fruits and vegetables and meat products made significant changes.

Fruits and vegetables, which had the largest marketing bill among the product groups in both periods, accounted for 25 percent of the farm-retail marketing bill in 1958 compared with 28 percent in 1947-49. The volume of these products did not increase by as large a percentage as the average for all product groups, and unit marketing charges for the group rose by about the average for all groups. In retail cost, this group ranks second to the meat products group.

Charges for marketing meat products made up 21 percent of the farm-retail marketing bill in 1958 and 19 percent in 1947-49. Marketings of these products increased by a smaller percentage than the average for all groups, but unit marketing charges advanced by a larger percentage than for any other group. The marketing bill for meat products increased 78 percent from 1947-49 to 1958 -- the largest gain for any group. The meat products group has a considerably larger farm value and retail cost than any other product group.

Bakery and cereals products had scarcely any expansion in volume but their average unit marketing charge rose almost as much as that for the meat products group. The bakery and cereals group was the only one to have a smaller farm value in 1958 than in 1947-49; its farm value was down 7 percent.

The poultry and eggs group had the largest increase in volume of products marketed but unit marketing charges for the group were about the same in 1958 as 1947-49. The marketing bill increased less than the average for all groups.

The dairy products group ranked second with respect to farm value in 1958 and in 1947-49. Retail cost and farm value of the products in this group increased by the average percentage increase for all product groups. The marketing bill also made about the average increase.



Table 8.- Farm-retail marketing bill for domestic farm food products purchased by civilian consumers, farm value, and retail cost, all farm foods and five major commodity groups, United States, annual 1913-58 <sup>1/</sup>

Year	All farm foods <sup>2/</sup>			Meat products			Dairy products			Poultry and eggs			Bakery and cereal products			Fruits and vegetables		
	Mar- ket- ing bill	Farm value	Re- tail cost	Mar- ket- ing bill	Farm value	Re- tail cost	Mar- ket- ing bill	Farm value	Re- tail cost	Mar- ket- ing bill	Farm value	Re- tail cost	Mar- ket- ing bill	Farm value	Re- tail cost	Mar- ket- ing bill	Farm value	Re- tail cost
	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.	Bil. dol.
	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
1913	3.88	3.53	7.41	0.91	1.35	2.26	0.61	0.62	1.23	0.21	0.45	0.66	0.98	0.44	1.42	0.89	0.55	1.44
1914	4.27	3.64	7.91	.91	1.35	2.26	.64	.64	1.28	.20	.47	.67	1.13	.49	1.62	1.11	.58	1.69
1915	4.36	3.63	7.99	.95	1.21	2.16	.67	.66	1.33	.20	.48	.68	1.15	.59	1.74	1.05	.56	1.61
1916	5.12	4.35	9.47	.99	1.50	2.49	.70	.74	1.44	.22	.53	.75	1.31	.68	1.99	1.46	.71	2.17
1917	6.35	6.05	12.40	1.00	2.03	3.03	.74	.94	1.68	.26	.68	.94	1.63	1.15	2.78	2.13	.97	3.10
1918	6.32	6.87	13.19	1.45	2.51	3.96	.79	1.09	1.88	.36	.83	1.19	1.40	1.05	2.45	1.68	1.04	2.72
1919	7.67	7.55	15.22	1.64	2.50	4.14	1.04	1.34	2.38	.42	1.03	1.45	1.69	1.21	2.90	2.20	1.13	3.33
1920	9.16	7.36	16.52	1.97	2.15	4.12	1.13	1.40	2.53	.48	1.10	1.58	1.99	1.17	3.16	2.91	1.30	4.21
1921	7.52	5.05	12.57	2.05	1.40	3.45	1.19	1.15	2.34	.39	.77	1.16	1.80	.62	2.42	1.69	.95	2.64
1922	7.69	5.19	12.88	1.93	1.56	3.49	1.17	1.14	2.31	.37	.75	1.12	1.77	.59	2.36	1.98	.99	2.97
1923	8.38	5.62	14.00	2.19	1.58	3.77	1.26	1.39	2.65	.41	.83	1.24	1.84	.59	2.43	2.12	1.03	3.15
1924	8.64	5.87	14.51	2.34	1.73	4.07	1.25	1.34	2.59	.45	.86	1.31	1.85	.67	2.52	2.25	1.06	3.31
1925	8.96	6.77	15.73	2.18	2.10	4.28	1.36	1.47	2.83	.45	.96	1.41	1.94	.87	2.81	2.45	1.15	3.60
1926	9.43	6.95	16.38	2.17	2.18	4.35	1.40	1.53	2.93	.46	1.03	1.49	2.07	.80	2.87	2.74	1.22	3.96
1927	9.51	6.72	16.23	2.21	2.04	4.25	1.47	1.62	3.09	.44	.96	1.40	2.16	.74	2.90	2.61	1.14	3.75
1928	9.33	6.94	16.27	2.17	2.11	4.28	1.50	1.69	3.19	.43	1.05	1.53	2.24	.74	2.98	2.34	1.13	3.47
1929	9.86	7.22	17.08	2.22	2.23	4.45	1.57	1.76	3.33	.58	1.12	1.70	2.18	.68	2.86	2.68	1.21	3.89
1930	9.82	6.33	16.15	2.31	1.94	4.25	1.56	1.57	3.13	.58	.93	1.51	2.22	.56	2.78	2.55	1.13	3.68
1931	8.40	4.66	13.06	2.21	1.37	3.58	1.41	1.25	2.66	.49	.71	1.20	1.89	.35	2.24	1.98	.86	2.84
1932	7.21	3.40	10.61	1.76	.91	2.67	1.24	.97	2.21	.34	.54	.82	1.65	.26	1.91	1.68	.61	2.29
1933	7.30	3.56	10.93	1.68	.92	2.61	1.21	.96	2.17	.32	.48	.80	1.60	.34	2.00	1.86	.73	2.59
1934	7.92	4.27	12.52	1.90	1.13	3.26	1.24	1.12	2.36	.40	.58	.98	1.81	.47	2.38	2.03	.80	2.83
1935	7.58	5.02	12.94	1.70	1.49	3.39	1.29	1.29	2.58	.34	.75	1.09	1.75	.52	2.41	2.02	.79	2.81
1936	8.51	5.78	14.29	2.00	1.79	3.79	1.39	1.42	2.81	.39	.77	1.16	1.93	.58	2.51	2.22	1.00	3.22
1937	8.20	5.98	14.18	2.05	1.90	3.95	1.41	1.49	2.90	.43	.81	1.24	1.92	.61	2.53	1.81	.95	2.76
1938	8.18	5.20	13.39	1.86	1.71	3.57	1.40	1.32	2.72	.39	.77	1.16	2.01	.41	2.42	1.78	.78	2.56
1939	8.19	5.17	13.37	1.85	1.69	3.54	1.44	1.32	2.76	.38	.72	1.10	1.87	.39	2.26	1.93	.86	2.79
1940	8.5	5.6	14.1	1.9	1.8	3.7	1.5	1.5	3.0	.4	.8	1.2	1.9	.4	2.3	2.0	.9	2.9
1941	9.2	7.1	16.3	1.8	2.5	4.3	1.7	1.7	3.4	.4	1.0	1.4	2.0	.5	2.5	2.2	1.1	3.3
1942	10.5	9.3	19.8	1.7	3.2	4.9	2.0	2.1	4.1	.6	1.4	2.0	2.2	.7	2.9	2.6	1.5	4.1
1943	11.1	11.4	22.3	1.8	3.6	5.2	2.0	2.3	4.3	.7	2.0	2.7	2.4	.9	3.3	2.4	2.1	5.0
1944	11.4	11.6	22.5	1.9	3.7	5.3	2.0	2.5	4.5	.7	1.8	2.5	2.3	.9	3.1	3.1	2.3	5.3
1945	12.5	12.6	24.4	1.7	3.7	5.0	2.2	2.6	4.8	.8	2.3	3.1	2.6	1.0	3.5	4.0	2.5	6.4
1946	15.6	15.7	30.8	2.4	5.2	7.3	2.8	3.5	6.3	1.0	2.4	3.4	3.0	1.3	4.2	4.7	2.6	7.2
1947	18.0	18.7	36.7	3.4	7.3	10.7	3.1	3.8	6.9	1.1	2.7	3.8	3.3	1.5	4.8	5.3	2.6	7.9
1948	19.9	19.3	39.2	3.8	7.5	11.3	3.5	4.1	7.6	1.2	3.0	4.2	3.9	1.5	5.4	5.4	2.4	7.8
1949	20.8	16.9	37.7	4.0	6.5	10.5	3.4	3.5	6.9	1.2	2.8	4.0	4.3	1.2	5.5	5.6	2.3	7.9
1950	20.9	17.6	38.5	4.1	7.2	11.3	3.4	3.6	7.0	1.3	2.6	3.9	4.3	1.3	5.6	5.5	2.2	7.7
1951	22.8	20.0	42.8	4.2	8.0	12.2	3.9	4.1	8.0	1.5	3.2	4.7	4.7	1.4	6.1	6.1	2.5	8.6
1952	24.5	19.9	44.4	4.9	7.6	12.5	4.1	4.3	8.4	1.5	3.1	4.6	4.9	1.4	6.3	6.5	2.8	9.3
1953	25.5	19.0	44.5	5.4	7.1	12.5	4.3	3.9	8.2	1.5	3.3	4.8	5.0	1.4	6.4	6.7	2.5	9.2
1954	26.5	18.4	44.9	5.4	7.2	12.6	4.5	3.8	8.3	1.6	2.7	4.3	5.1	1.4	6.5	6.9	2.5	9.4
1955	28.0	18.3	46.3	6.2	6.7	12.9	4.8	4.0	8.8	1.5	2.9	4.4	5.2	1.3	6.5	7.4	2.6	10.0
1956	29.6	18.7	48.3	6.5	6.7	13.2	5.0	4.2	9.2	1.6	2.9	4.5	5.4	1.3	6.7	7.8	2.8	10.6
1957	30.9	19.5	50.4	6.6	7.6	14.2	5.3	4.3	9.6	1.7	2.8	4.5	5.6	1.3	6.9	7.9	2.7	10.6
1958 <sup>4/</sup>	32.0	20.8	52.8	6.6	8.6	15.2	5.6	4.3	9.9	1.9	3.0	4.9	5.9	1.3	7.2	8.0	2.8	10.8

<sup>1/</sup> Retail-cost estimates represent cost at retail food store prices of all domestic farm foods that were both sold by farmers and bought by civilian consumers in this country. Farm food products sold in the form of meals are included but are valued at what the food would have cost in retail stores. Farm value is adjusted to eliminate imputed value of nonfood by-products. The farm-retail marketing bill is the difference between the farm value and retail cost except for the years 1933-35 and 1943-46 in which the marketing bill for some groups is adjusted for processor taxes or Government payments to processors.

<sup>2/</sup> Includes vegetable-oil products, sugar, and other food products in addition to the five commodity groups given in this table.

<sup>3/</sup> The estimated farm values of milk, eggs, fruits, lard, and vegetable shortening used in bakery products were deducted from the farm values of other commodity groups and added to the farm value of the bakery and cereal products group.

<sup>4/</sup> Preliminary estimates.



INDEXES OF FACTORY PRODUCTION OF DOMESTIC FARM FOOD PRODUCTS 1/

:  
: This article presents indexes for measuring annual :  
: changes in factory production of processed domestic farm food: :  
: products for the period 1909-58 and discusses trends in :  
: these series. These index numbers were developed as a part :  
: of an investigation of changes in productivity of resources :  
: employed in marketing domestic farm food products. A more :  
: comprehensive report, including a discussion of methods, :  
: sources, and limitations of the indexes presented in this :  
: article will be published at a later date. :  
:

: During the last 50 years, factory output of processed :  
: domestic farm foods has increased at an average rate of 2.6 :  
: percent per year, significantly faster than the population. :  
: About three-fourths of the rise in output can be associated :  
: with increased marketings of food products by farmers. And :  
: about a fourth was accounted for by shifts from on-farm and :  
: wholesale and retail processing to factory processing plus :  
: "more processing" per unit of farm product marketed. The :  
: picture has been about the same since the end of World War :  
: II. :  
:

: When the period since World War I is considered as a :  
: whole, increases in output accounted for the major share of :  
: the rise in charges for processing (measured by "value :  
: added") domestic farm food products. But for the period :  
: since World War II, rising processing charges per unit of :  
: output accounted for the major share of the rise in total :  
: processing charges. :  
:

Measured by factory "value added," processing charges accounted for about a third of the total bill for marketing domestic farm food products bought by civilian consumers in this country in 1957. 2/ That year the total bill for assembly, transportation, processing, and distribution amounted to \$35.6 billion or about two-thirds of the sum consumers spent for these products. 3/ Both processing charges and the total marketing bill have increased sharply since the end of World War I, but the marketing bill has risen at a significantly faster rate. Consequently, processing charges now account for a smaller fraction of the marketing bill than they did during the interwar years. The ratio of processing charges to the total marketing bill declined only slightly from 1919 to 1939; the decrease in each decade from 1939 to 1958 was more substantial.

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1/ Prepared by William H. Waldorf, Economist, Market Organization and Costs Branch, Mktg. Res. Div., Agr. Mktg. Serv.

2/ "Value added," as used in this article and in the Census of Manufactures, is "calculated by subtracting the cost of materials, supplies, and containers, fuel, purchased electric energy, and contract work from the total value of shipments." For an analysis of the "value added" concept applied to components of consumer expenditures for food, see Kenneth E. Ogren, "The Marketing Bill for Agricultural Products," Agricultural Economics Research, Vol. VII, No. 4, Oct. 1955, pp. 101-107, and "The Farmer's Share: Three Measurements," Agricultural Economics Research, Vol. VIII, No. 2, Apr. 1956, pp. 43-50.

3/ For a description of the marketing bill see pp. 10-21.



The rise in processing charges since World War I resulted from an increase of about 145 percent in the production of processed domestic farm foods combined with a 70-percent rise in unit fabricating charges. <sup>4/</sup> In contrast, since 1947 unit fabricating charges have risen at a faster rate (about 30 percent) than physical output (about 25 percent). About 54 percent of the increase in processing charges during the entire four decades can be attributed to the rise in output, and 46 percent to higher unit fabricating charges; since the end of World War II, the proportions are exactly reversed -- 46 percent to increased production and 54 percent to higher unit charges.

#### Trends in Total and Per Capita Factory Production

Factory production of processed domestic farm food products increased about 240 percent from 1909 to 1958; more than half of the rise occurring during the last two decades (table 9). <sup>5/</sup> During the first decade production rose 37 percent and in the second 10-year period the increase was 21 percent. But the Great Depression retarded growth and during the third decade production rose only 11 percent. Increased civilian consumption combined with greater military and export demands for farm foods resulted in a 44-percent rise in factory output during the World War II and early postwar period, 1939-47. Except for a slight dip in 1948, the index increased every year after 1947; it reached an alltime high in 1958 -- 28 points above the 1947-49 average. The indexes indicate the close relation of total factory production of farm foods to general economic activity. The sharpest relative increases occurred during periods of strong wartime demand; the smallest during the decade marked by the Great Depression.

During the last half century, the index of factory production of processed domestic farm food products rose at an average annual rate of nearly 2.6 percent (fig. 1). <sup>6/</sup> This long-term average rate of growth was affected substantially by the upsurge during and after World War II: Since 1947, production has grown at the rate of 2.6 percent per year; from 1909 to 1939 the average annual rate was 1.9 percent.

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<sup>4/</sup> Unit fabricating charges were derived by dividing an index of total value added by an index of factory production. This ratio is, of course, subject to all the statistical errors -- and biases -- inherent in both the numerator and denominator. For example, the physical output index in this report, like all measures of physical output, probably has a downward bias due to its failure to reflect fully "quality" changes. The rise in unit fabricating charges is probably overstated by the extent of this bias.

<sup>5/</sup> Factory production (and value added in factory production), as used in this article, includes production for civilian consumption, changes in stocks, exports, and Government purchases for military use and for various relief programs. For comparison with the farm food marketing bill, an index that reflected only civilian consumption of factory processed farm food would be better. But differences between a civilian consumption index and a production index would not be significant in comparing long-term trends, especially if World War II years, a period of relatively large military takings, were omitted. Indexes of civilian consumption of factory production are being constructed.

<sup>6/</sup> Fig. 1 is a ratio (semilogarithmic) chart in which equal distances show equal rates of change. Thus, by comparing slopes we can compare visually average rates of growth in different time periods and in different series.



Table 9.—Factory production of domestic farm food products

(1947-49 = 100)								
Year	All processed: foods 1/	Meat products 2/	Dairy products 3/	Poultry and processed eggs 4/	Bakery and grain mill products 5/	Processed fruits and vegetables 6/	Sugar and confectionery products 7/	Miscellaneous products 8/
1909	38	52	13	---	57	20	42	21
1910	38	49	14	---	57	19	43	24
1911	40	55	16	---	58	23	49	23
1912	41	53	17	---	59	27	46	24
1913	41	53	19	---	59	24	56	25
1914	42	52	21	---	61	27	53	23
1915	44	56	23	---	62	25	58	26
1916	46	62	25	---	62	26	66	28
1917	47	58	28	---	62	32	61	29
1918	51	69	32	---	64	35	65	32
1919	52	68	35	---	67	32	52	35
1920	48	59	35	---	61	30	72	37
1921	46	56	38	---	56	23	69	37
1922	50	61	40	---	61	35	47	41
1923	54	70	45	---	63	39	49	41
1924	55	72	45	---	64	36	65	45
1925	56	67	48	---	63	49	66	43
1926	57	69	48	---	67	44	52	47
1927	58	69	51	---	69	41	53	50
1928	61	72	51	---	73	46	61	50
1929	63	73	56	37	75	48	69	49
1930	63	70	56	40	74	54	66	47
1931	59	69	54	36	69	43	59	44
1932	56	66	53	37	62	39	62	40
1933	56	69	53	41	57	44	65	45
1934	58	81	51	40	62	47	66	45
1935	59	64	54	38	64	58	72	45
1936	65	76	58	43	69	54	80	57
1937	67	71	61	40	70	68	80	58
1938	68	75	62	37	72	61	85	64
1939	70	79	64	45	74	61	86	66
1940	73	87	67	50	73	66	91	65
1941	79	90	72	60	74	82	97	78
1942	86	101	81	90	76	91	99	88
1943	90	114	83	113	81	88	92	94
1944	93	118	87	122	83	91	99	87
1945	95	106	95	105	92	90	95	90
1946	99	102	103	100	93	113	94	86
1947	101	105	101	92	101	97	102	98
1948	98	96	98	88	100	99	99	97
1949	101	99	100	120	99	104	99	105
1950	104	101	102	146	100	106	109	112
1951	106	100	103	164	103	124	99	110
1952	109	105	105	185	104	122	101	116
1953	113	113	109	207	103	129	104	122
1954	114	116	112	242	102	128	102	126
1955	119	125	117	271	104	135	97	133
1956	126	130	122	332	108	151	101	136
1957	126	124	124	353	111	144	107	139
1958	128	119	124	401	114	147	109	146

1/ Measures physical output of manufacturing establishments processing domestically produced farm food products. Output includes factory byproducts as well as foods. In general, the scope of the index is the same as that of the Census of Manufactures. All (4-digit) industry indexes are benchmarked to Census and Biennial Census of Manufactures data except those for poultry and processed eggs and processed fruits and vegetables.

2/ Includes output of meatpacking plants and establishments specializing in prepared meat products. The index measures some duplication (about 15 percent) before 1939 because of interplant shipments of fresh meats for further processing but the volume of such shipments relative to total shipments did not change sufficiently to affect seriously the index during those earlier years.

3/ Includes the output of establishments manufacturing mainly creamery butter, natural cheese, concentrated milk, ice cream and ices, special dairy products, and fluid milk and cream. Fluid milk and cream have been included only since 1929.

4/ Includes poultry slaughter in dressing plants, liquid, dried and frozen eggs, and canned poultry (since 1947). The definition of poultry dressing plants is that used in the "Commercial Poultry Slaughter Report," published by AMS since 1954. Factory slaughter before 1954 was estimated from sales of poultry off farms and other data.

5/ Includes the output of establishments specializing in the production of flour and meal, cereal products, rice milling, bread and related products, and biscuits and crackers. The bread and related products industry includes wholesale bakeries, grocery chain bakeries, house-to-house bakeries, and retail multioutlet bakeries. The 1947 Census of Manufactures included establishments of multiunit enterprises with baking on the premises; these establishments were classified in retail trade in 1954 and, as a consequence, are not reflected in the production index. According to the Census of Manufactures, this change in classification did not significantly affect the comparability of statistics between 1947 and 1954 for bread and related products manufacturing establishments.

6/ Includes canned fruits and vegetables, dehydrated fruits and vegetables, pickles and sauces, and frozen fruits and vegetables; index based on pack data from various sources including National Canners Association and Western Canners and Packers Association.

7/ Includes establishments producing raw cane sugar, beet sugar, and confectionery products. Estimated output of refined domestic cane sugar also is included.

8/ Output of establishments producing leavening compound, shortening and cooking oils, margarine, corn wet milling products, flavorings, macaroni and spaghetti, and peanut butter. Census benchmark indexes are available for the first six series since 1929; before 1929, a "coverage adjustment" was used for missing industries during each census and biennial census year. These benchmark data have been interpolated on the basis of four of the series, shortening and cooking oils, margarine, corn wet milling, and peanut butter.



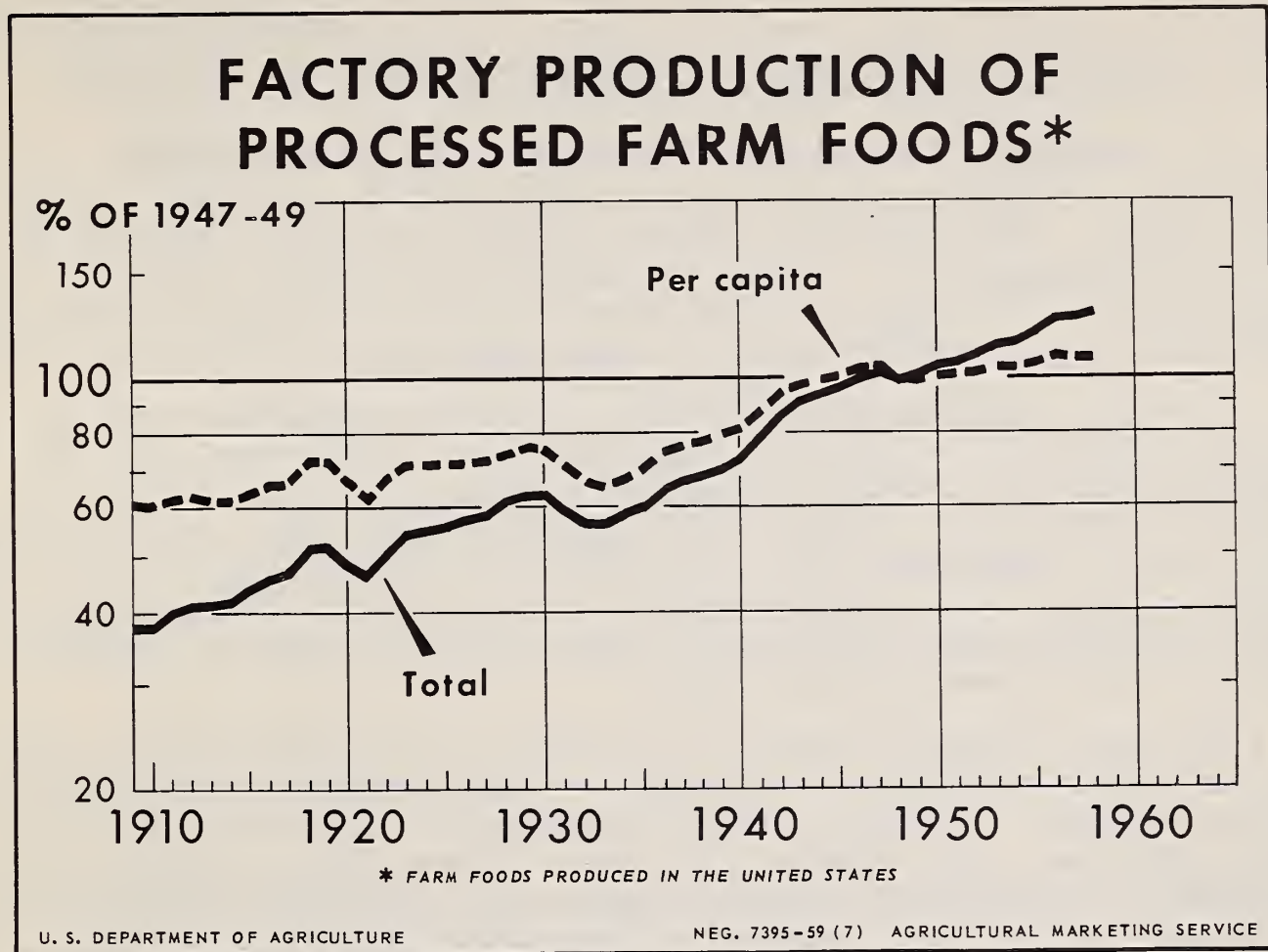


Figure 1

From 1909 to 1958 factory production of domestic farm foods per person rose 77 percent (fig. 1). Factory production per capita increased 18 percent during the first decade; 6 percent in the second decade; and 3 percent in the third, depression-marked, decade. Between 1939 and 1947, per capita production rose 30 percent; since 1947 it has increased only 5 percent. Unlike total production, per capita output has not risen steadily since 1948.

#### Factors in the Rise of Factory Production

The long-term rise in factory production of domestic farm foods reflects (1) increased farm food marketings (mainly reflecting increased civilian consumption), (2) shifts from processing done on farms and in wholesale and retail establishments to factory processing, and (3) more factory processing per unit of farm food products marketed. The third factor, more factory processing per unit of marketings, includes "quality" changes such as a shift between fresh and processed pork, more and improved

packaging, and increased importance of so-called "convenience foods." <sup>7/</sup> The third component also reflects a rise in the proportion of total farm marketings being processed; for example, an increase in the proportion of fruits and vegetables being processed.

The index of volume of farm food marketings <sup>8/</sup> constructed by the Agricultural Marketing Service can be used to gauge the effect of the first factor. The difference between the factory production index and the marketings index can be used to measure the combined effects of the second and third factors -- shifts from nonfactory to factory processing and changes in the extent of fabricating services per unit of marketings.

Over the entire period, 1910-58, <sup>9/</sup> factory production rose 237 percent compared with an increase of 152 percent in marketings (fig. 2). Factory production outpaced marketings during each decade. During the last half century as a whole, about three-fourths of the rise in factory output can be associated with increased marketings and the remaining one-fourth was due to the combined effect of the other two factors. <sup>10/</sup> These proportions were about the same for both the period that followed World War II and the prewar period, 1910-39.

Although we cannot separate the effect of the shift between nonfactory and factory processing from the effect of the increased extent of fabricating, several illustrations will indicate that both of these factors were significant. For example, the ratio of farm plus nonfactory commercial slaughter of livestock to total slaughter (in live weight) declined from 39 percent in 1909 to 23 percent in 1947 and to 16 percent in 1954. Farmers retailed about 20 percent of total nonfarm consumption of fluid milk and cream in 1939 compared to 12 percent in 1947 and 5 percent in 1957. Fluid milk and cream make up an important component of the index of factory processed dairy products. The increased extent of factory

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<sup>7/</sup> As previously noted, the production index probably does not fully reflect quality changes. To continue the illustration in the text, it reflects a shift between fresh and processed pork products; it only partially reflects trends in packaging.

<sup>8/</sup> Ernest W. Grove and Margaret F. Cannon, New Index Numbers of Farm Marketings and Home Consumption, U.S. Dept. Agr., AH-107, Agr. Mktg. Serv., July 1956. The most important conceptual and statistical problem in the present use of this index is that marketings include net quantities placed under Commodity Credit Corporation loan. If we adjusted the index for food grains held under CCC purchase and loan programs the increase would be 10 percent less between 1937 and 1958 than the series actually used. To this extent, the importance of the first factor -- increased marketings -- is overstated.

<sup>9/</sup> The index of farm food marketings begins in 1910.

<sup>10/</sup> The technique for separating an increment of change into its components is based on a method outlined for a similar problem by Frederick C. Mills in Productivity and Economic Progress, National Bureau of Economic Research, Occasional Paper 38, (1952), pp. 31-36. The figure for the relative contribution for the entire four decades was computed decade by decade in order to reduce the "interaction factor." For that reason the difference in the relative contributions of output and unit fabricating charge to the rise in value added (processing charges) from 1919-58 may appear small (8 points) when compared with the increase of 145 percent in output and 70 percent in unit fabricating charges; see p. 23.



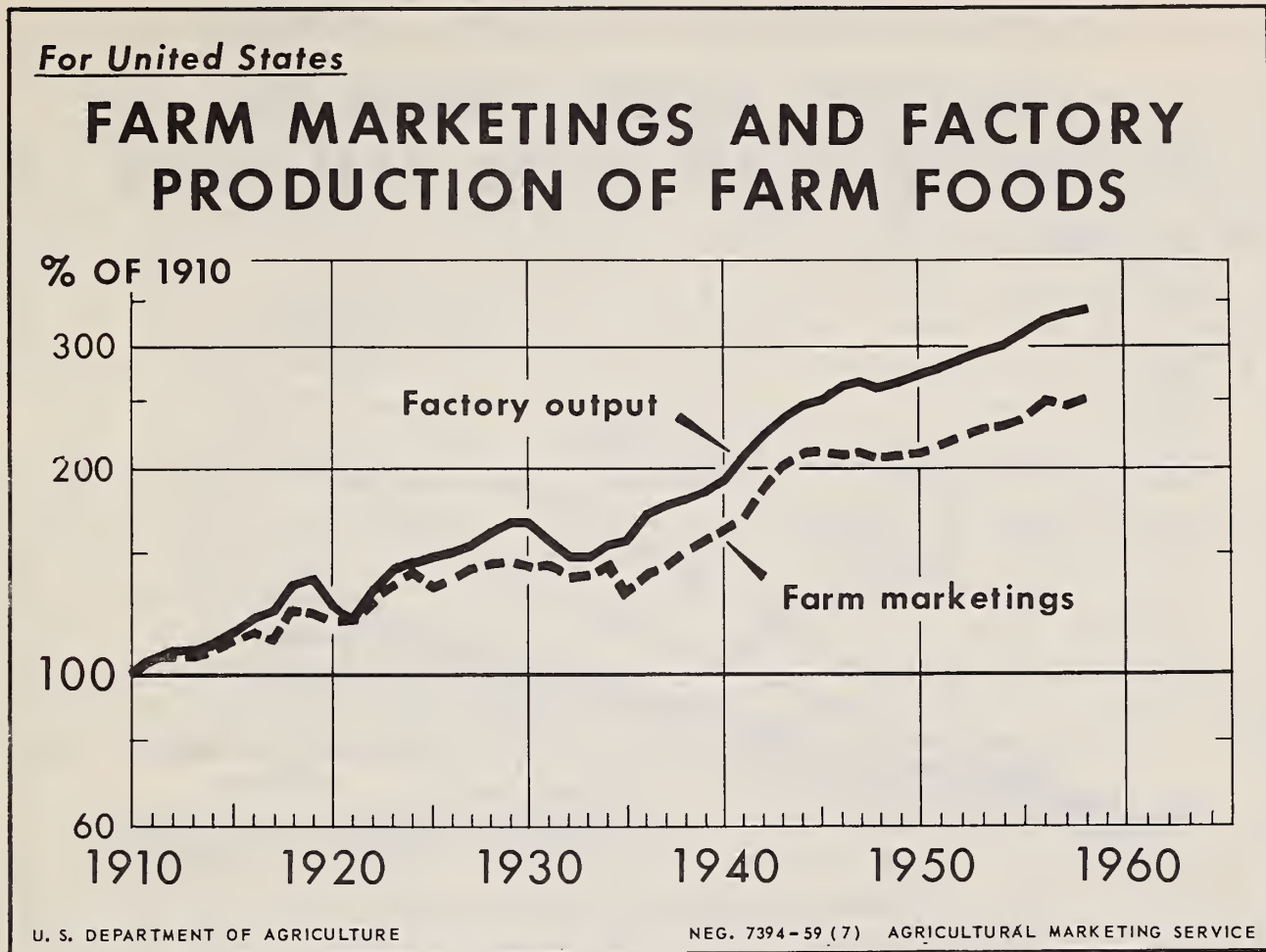


Figure 2

processing of farm food products is well dramatized by fruits and vegetables. At the end of the first decade of the century, processed (canned and dried) fruits accounted for about an eighth of total fruit consumption; currently the ratio is about half. The trend was roughly the same for vegetables.

### Trends in Commodity Group Indexes

Trends in individual product group indexes varied widely. Figure 3 is a ratio chart constructed to compare rates of growth for the periods: Before 1939, from 1939 to 1947, and since 1947. During the five decades, from 1909 to 1958, the indexes for dairy products and processed fruits and vegetables rose markedly faster than the all-processed-food index (fig. 3). The index of poultry and processed eggs also has increased at a substantially faster rate than the all-processed-food index since 1929, the first year for which data are available. In contrast, output indexes for meat products and bakery and grain mill products increased less than the average. Sugar and confectionery products rose more rapidly before

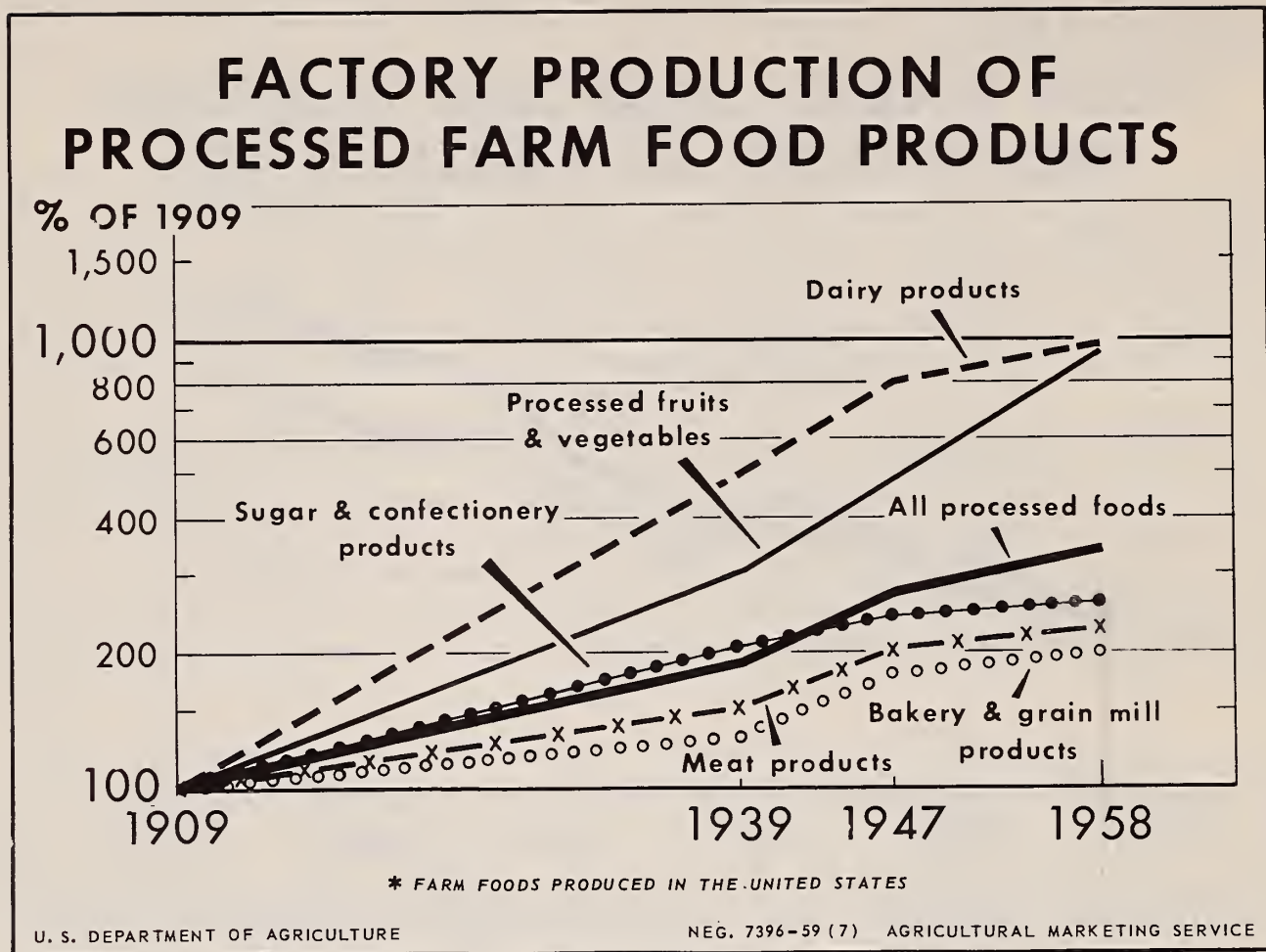


Figure 3

World War II than all foods combined, reflecting primarily the growth of the beet sugar industry, but since 1939 the increase has been relatively less than the average. Aside from sugar and confectionery products, the product groups that rose faster than average for all foods before World War II also rose faster than average after the War.

As a result of these divergent trends the relative importance of red meats and food grain products has declined. In 1909, meat products contributed 32 percent to the all-processed-food index and bakery and grain mill products 53 percent; in 1954 the respective percentages were 22 and 29. <sup>11/</sup> In contrast, dairy products contributed only 4 percent to the all-processed-food index in 1909 but 22 percent in 1954. The contribution of processed fruits and vegetables increased from 5 percent in 1909 to 14 percent in 1954.

<sup>11/</sup> The base for making these comparisons excludes poultry and processed eggs because data are not available for 1909. In 1954, poultry and processed eggs contributed about 7 percent to the all-processed-food index.



## GEOGRAPHIC STRUCTURE OF MILK PRICES, 1957-58 <sup>1/</sup>

Prices milk dealers pay to farmers for milk are influenced by the distance of the market from areas of abundant supplies. Plotting dealers' prices for milk on a map, and drawing in lines at successive price levels, produces the effect of a weather map. Figure 4 shows such a map with price contour lines at \$4.00 per 100 pounds, and at successive steps of 46 cents a 100 pounds, or approximately 1 cent a quart. These prices are for milk used for bottling; that is, milk designated as Class I in use classification plans.

The principal area of low milk prices for the period plotted -- 1957-58 -- was in the north-central region. In much of Wisconsin, Minnesota, Iowa, and Illinois, prices paid farmers for milk were below \$4.00 per 100 pounds for milk containing 3.5 percent butterfat. This zone of less-than-\$4.00 prices was slightly larger in 1957-58 than in 1953-54. <sup>2/</sup> During the intervening years prices declined slightly in northern Iowa and central Illinois. The \$4.46 price contour remained relatively unchanged from 1953-54 to 1957-58, but prices in Montana and Wyoming rose, to push the \$4.92 contour eastward a considerable distance.

Outside the north-central region, "low" price areas existed on the west coast and in Vermont. The Vermont area changed little from 1953-54 to 1957-58, but the level of prices rose to the next higher bracket in central California and in the Puget Sound area of Washington State.

Prices on the Atlantic and gulf coasts were highest. The zones of highest prices remained about the same from 1953-54 to 1957-58, although prices in Connecticut and Rhode Island had risen by 1957-58 to the next higher bracket (\$6.30 to \$6.76) and the zone of prices between \$5.84 and \$6.30 had become wider. In the Southwest, the zone of prices higher than \$5.84 moved northward across Arizona into Colorado.

The average relationship of price to distance was such that dealers' buying prices per 100 pounds of fluid milk increased an average of 2.18 cents per 10 miles increase in distance, using Eau Claire, Wisconsin, as the basing point (fig. 5). Four years earlier, the average was 1.92 cents per 100 pounds per 10 miles. The change in the average rate of increase in price with distance reflects the tendencies shown on the map of price contours. In several sections of the country the contours had moved closer to the Midwest.

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<sup>1/</sup> Prepared by Louis F. Herrmann, Head, Dairy Section, and Helen V. Smith, Statistical Assistant, Market Organization and Costs Branch, Mktg. Res. Div., Agr. Mktg. Serv.

<sup>2/</sup> See Mktg. Res. Rpt. 98, Regulations Affecting the Movement and Merchandising of Milk, U.S. Dept. Agr., Agr. Mktg. Serv., June 1955, pp. 87-100.

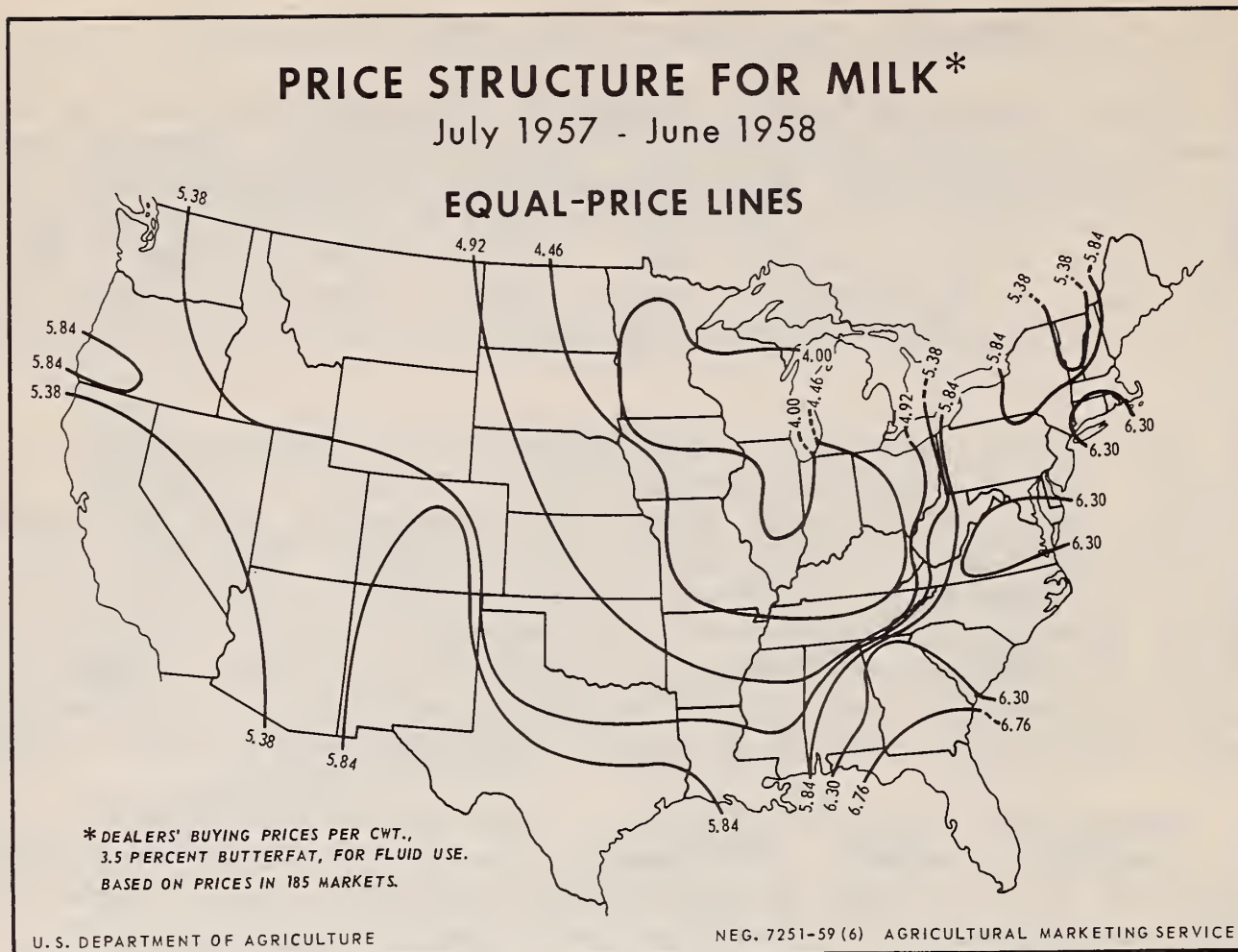


Figure 4

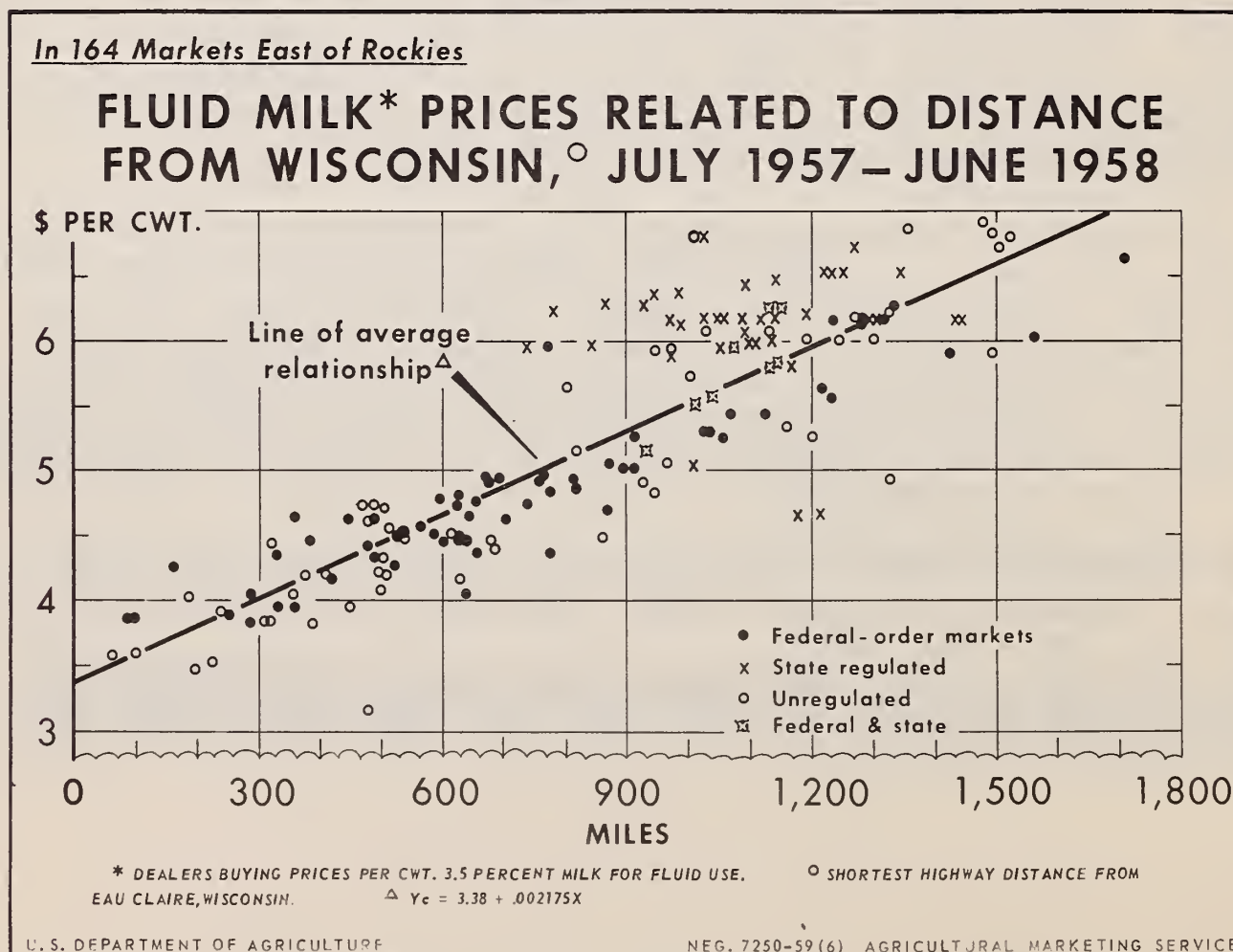


Figure 5



The average rate of increase in prices with distance would be expected to approximate the rates for transportation plus other transfer costs, but directly relevant current data on such rates and costs have not been compiled. The rate of 1.92 cents for 1953-54 was found to agree approximately with information from several firms that specialize in tanking milk between markets. Many of the items of expense in truck operation rose substantially between 1953-54 and 1957-58. Prices of gasoline declined 2 percent, but lubricating oil rose 24 percent, tires and tubes 18 percent, trucks 11 percent, and truck repair 13 percent. Quantities of milk moving by rail are almost negligible but rail freight rates are of some significance as an indicator of transportation costs. They rose about 11 percent between 1953-54 and 1957-58. On the whole, the change in geographic structure of milk prices appears consistent with these changes in items of transportation expense.

The regression of price on distance indicated a price of \$3.38 at Eau Claire for fluid milk. This was 24 cents under the price established in the Eau Claire zone by the Chicago order. It was 32 cents above the average price paid farmers at 12 Midwest condenseries. 3/

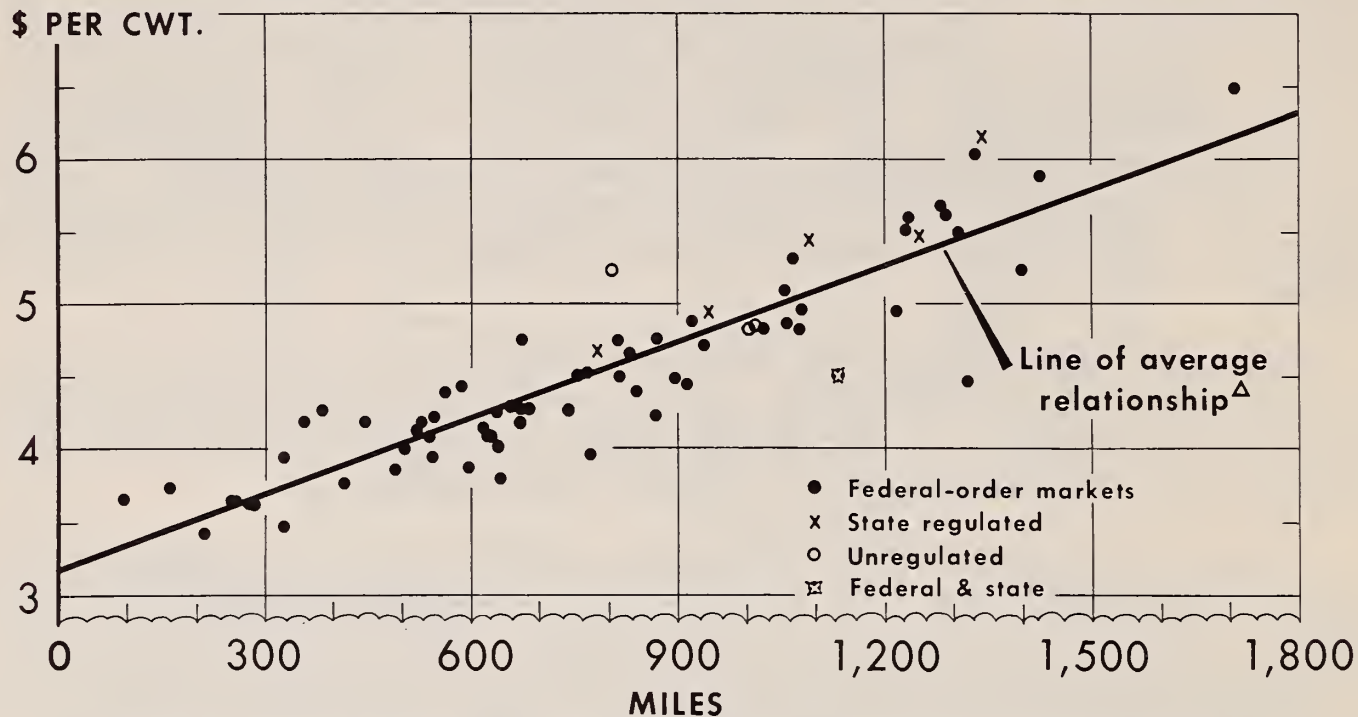
Because milk produced for fluid milk markets is sold by producers on a classified price basis, the incentive for producers to shift from one market to another is measured by blend prices. The "blend" is a weighted average of the separate prices for the different uses made of the milk. The average line of relationships began at a point 20 cents per 100 pounds below the calculated dealers' buying price at Eau Claire in 1957-58 (fig. 6). The slope of the regression (rate of increase with distance) was 1.74 cents per 10 miles. This slope is not as steep as the Class I regression, as it is an average of the Class I price, which increases rapidly with distance, and the surplus or manufacturing-use class, which increases very little with distance. The difference between the two regressions implies an average utilization of about 80 percent in Class I when no allowance is made for a rise of price with distance in other classes of use.

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3/ These 12 plants are the remaining plants of the former "18 Midwest Condenseries."

*In 74 Markets East of Rockies*

# **BLEND PRICES FOR MILK,\* RELATED TO DISTANCE FROM WISCONSIN,<sup>o</sup> JULY 1957-JUNE 1958**



\* UNIFORM PRICES PAID PRODUCERS BY HANDLERS UNDER FEDERAL OR STATE REGULATION OR BY LEADING COOPERATIVES PER CWT. FOR 3.5 PERCENT MILK. <sup>o</sup> SHORTEST HIGHWAY DISTANCE FROM EAU CLAIRE, WISCONSIN <sup>Δ</sup>  $Y_c = 3.18 + .001745X$

U. S. DEPARTMENT OF AGRICULTURE

NEG. 7249-59(6) AGRICULTURAL MARKETING SERVICE

Figure 6



EFFECT OF HEAVIER LOADING OF RAIL SHIPMENTS ON THE MARKETING  
OF FRESH FRUITS, VEGETABLES, AND MELONS 1/

Within the last 18 months railroads have offered shippers in the Southeast, Texas, and the west coast area lower per-package freight and refrigeration charges on shipments of fruits, vegetables, and melons (excluding watermelons) to the North and East, provided they load additional layers of containers in each car. Information now available on the experience of shippers, carriers, and receivers with heavier loads indicates that the new option will undoubtedly affect to a marked degree the transportation and marketing pattern for these commodities.

Railroads made the option of heavier loading of fruits, vegetables, and melons (excluding watermelons), with the attendant advantages of lower per-package freight and refrigeration costs, available to the shippers in these producing areas on three different bases, as follows:

1. For vegetable shipments originating in the Southeast and destined for points in Official Territory, 2/ freight charges are assessed on a per-car basis. The rates vary, of course, with the distance the shipments move, but apply regardless of the number of packages in the car. With both the freight rates and protective service charges on a per-car basis, the greater the number of containers loaded per car, the lower are the per-package costs. Potential savings in total transportation costs per container for some vegetables can amount to as much as 45 percent when the maximum number of containers are loaded. Generally speaking, the greater the distance the shipment moves, the greater the total amount that may be saved per container.
2. For shipments of fresh peaches from the Southeast to Official Territory, a reduction of 25 percent in the applicable tariff rate (expressed in cents per 100 pounds) applies only when an additional complete layer of containers is added to the load. The tariff rules further specify that the fruits shipped in such heavier loads must be hydrocooled before shipment. In addition, when the fruit is packed in 1/2-, 3/4-, or 1-bushel baskets, the containers must be loaded by the crosswise-offset-alternately-inverted loading method in order for the shipment to qualify for the lower rate. 3/ Comparison of rates applicable for these heavier loads with those on conventional loads shows that on shipments of peaches in 1/2-bushel baskets from Fort Valley, Georgia, to New York City, the total saving in freight and refrigeration costs on a per-basket basis is more than \$200 per car.

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1/ Prepared by P. L. Breakiron, Transportation Economist, Transportation and Facilities Branch, Mktg. Res. Div., Agr. Mktg. Serv.

2/ The Official Territory includes the area east of the Mississippi River and north of the Ohio and Potomac Rivers.

3/ For a description of the alternately-inverted-crosswise-offset loading method for baskets see Mktg. Res. Rpt. 275, Improved Loading of Baskets of Peaches and Fresh Prunes in Railroad Cars, U.S. Dept. Agr., Agr. Mktg. Serv., Sept. 1958.



3. Optional heavier loading for shipments of fresh vegetables and melons, including potatoes shipped from points in the Pacific Northwest, is made available to shippers on the west coast and in Texas on the basis of multiple minimum rates. Under these tariff provisions, the applicable freight rates (in cents per 100 pounds) become progressively lower as the size of the load is increased, provided, however, that enough additional containers are loaded to reach a particular carload minimum weight. For some commodities, notably lettuce, there are as many as four different carload minimums and hence four different rates for shipments between the same origin and destination points.

The limited use of the heavier loads by the shippers and receivers has proved disappointing to many of the carriers, who anticipated a more enthusiastic reception and greater utilization of this innovation by the fruit and vegetable industry. This situation poses a number of important questions about the heavier loading.

Why have shippers and receivers not used the heavier loads more extensively? Will shippers and receivers use heavier loading as they gain more experience with it? What steps can be taken by shippers, carriers, and receivers to facilitate greater usage of heavier loading and to obtain maximum economic benefits from its use for different commodities?

The key to the answers to these and certain other questions lies in understanding both the physical and economic feasibility and limitations of heavier loading.

#### Why Load Heavier?

Heavier loading is essentially a device for getting more efficient utilization of railroad plant and equipment. Its use for this purpose is not new. Heavier loading has been practiced on various past occasions for many commodities, both with and without incentive rates. During World War II, Order 18-A of the Office of Defense Transportation required almost all commodities, including many agricultural perishables, to be loaded to higher carload minimums, many of which were substantially higher than those in effect before the war. The objective of this wartime regulation was to obtain maximum use of available railroad rolling stock and motive power. Even before World War II, various rail carriers, with approval of the Interstate Commerce Commission, used multiple carload minimum rates for different commodities as a competitive device.

From the standpoint of the railroads, a rate inducement to load heavier is an important competitive weapon with which they hope to recapture a substantial part of the agricultural perishable traffic diverted from rail to truck transportation during the last decade. If the rail carriers are successful, increased tonnage transported should be profitable to them. Two important reasons why this is true are given:

1. Because railroads are an industry of increasing returns -- the industry has a high ratio of fixed costs to variable costs, with ample plant capacity -- the more units of traffic moved with existing railroad facilities, the more profitable each additional unit of traffic becomes.



2. Because of more efficient utilization of railroad refrigerator cars and of motive power and labor effected by heavier loading, the variable, or out-of-pocket, costs per net ton of each commodity transported are substantially reduced. With heavier loads, switching, clerical, inspection, and other variable expenses are less per net ton of freight transported. In addition, the tare weight of the refrigerator car is less in proportion to the net weight of the load. Empty mileage on the return haul, an item that is exceptionally high for refrigerator cars, is less in proportion to each ton of perishables moved for the heavily loaded shipments than for shipments loaded lighter. Per-car rates on vegetables from the Southeast may be expected to benefit the railroads mainly from the increased units of traffic the new rates may bring to them. 4/

If properly employed, heavier loading can be quite profitable to shippers and receivers of many perishables. In addition to the potential economies from lower per-package freight and protective service costs or other accessorial charges assessed on a per-car basis, shippers and receivers may realize economies from lower per-package selling, administrative, and clerical expense.

#### Factors Favorable to Heavier Loading

Significant changes in the transportation of vegetables and melons during the last decade have affected favorably the physical and economic feasibility of heavier loading of rail shipments of fruits and vegetables. Modernization of the railroad refrigerator car fleet included the complete rebuilding of many old cars and the addition of thousands of new cars with improved floor racks, sidewall flues, and air circulation fans. These improvements provide better transportation equipment for more effective protection of heavier loads. Air circulating fans, particularly electrically driven fans located in the top openings of the bunker bulkheads of refrigerator cars, have made it possible to increase greatly the effectiveness of refrigeration in upper layers of loads during transit. New and improved containers and loading methods have greatly reduced the risk of excessive container breakage and product damage. New containers for cantaloups, for example, were used on a large scale last season for shipment of California and Arizona melons. Largely displacing the conventional jumbo crate, these new containers lend themselves to heavier loading with much less risk of damage. Development of the alternately inverted loading method for peaches packed in baskets has greatly facilitated the heavier loading of this commodity without risk of excessive damage. Risk of spoilage in heavy loads has been greatly reduced by accelerated train schedules resulting in reduced transit time for perishable shipments, increased use of mold inhibitors, and more precooling of many products before shipment.

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4/ With "per-car rates" per-car revenue yield to the carriers remains constant for shipments between the same origin and destination points regardless of the weight of the load and variations in the costs of handling the shipments. Therefore, the only way railroads participating in the per-car rates can realize an increase in total revenue from the traffic is through the additional units of traffic the rates may bring them. With multiple minimum rates, however, the lower rates on the higher minimums are graduated in such a way that heavier loads yield higher per-car revenue.



Changes in the marketing field during the last 10 years also have greatly enhanced the feasibility of heavier loading. Overall production and consumption of fresh fruits and vegetables have increased during the last decade. In addition, the average size of the firms engaged in the production, shipment, and distribution of these commodities has increased. Thus, more firms are large enough to ship and receive heavier loads. Modernization of marketing and food handling facilities has advanced greatly, extending in several cities, to complete relocation and construction of new terminal-market facilities to replace outmoded and inadequate century-old markets. As a result, greater quantities of fruits and vegetables can be handled with greater economy and efficiency than formerly. Most of the new chainstore warehouses and new facilities of independent receiver-wholesalers have larger and more efficient cold-storage facilities for prevention of spoilage and protection of product quality while the commodities are being held at those points for sale or distribution.

#### Factors Unfavorable to Heavier Loading

Although some conditions in the transportation and marketing of fruits and vegetables favor heavier loading, there are unfavorable ones too. If heavier loading is to be widely adopted, it must be offered to the shippers on an incentive basis. In the marketing of fruits and vegetables the element of risk is especially high. Use of substantially heavier loads by shippers and receivers of fruits and vegetables generally increases their marketing risk. Increased risk stems largely from two sources:

1. Because of the inherent perishability of the products, the receiver of the heavier loads will ordinarily have a greater risk of loss from spoilage or deterioration of quality before the entire shipment can be moved into normal marketing or distribution channels.
2. Even more important, perhaps, is the risk of unfavorable price changes. Prices of fruits and vegetables are affected by several different variables, such as weather and availability and location of supplies; therefore, they fluctuate frequently and widely. The shipper who has consigned a heavily loaded shipment to a particular market may find he has picked the wrong one from the price standpoint. Likewise, the receiver, who has purchased a heavily loaded car f.o.b. or after the car starts rolling, may find the market considerably lower when the car arrives than when it was bought. Market conditions can, of course, change for the better, in which case a large profit may be made on a heavier loaded shipment. However, apparently the unfavorable possibility is considered the more important of the two by shippers and receivers.

Availability also plays an important part in determining when and to what extent heavier loads can be used. Some shippers, particularly at the beginning of the shipping season for a given commodity, do not have enough of the product available at one time to make a heavier load. In some cases limited outlets of receivers and smaller markets limit use of heavier loads.



The smaller markets throughout the country now get a substantial part of their fresh vegetable supplies (with the exception of potatoes and onions) in mixed car and trucklots. But you can mix safely only a limited number of commodities, having similar protective service requirements, in the same load. In some instances a higher load minimum can be reached in mixed shipments only by including an additional commodity that has different temperature requirements than the others in the load. In such shipments the latter commodity may receive inadequate protection during transportation.

#### What May We Expect From Heavier Loading?

Use of heavier loading will undoubtedly necessitate some readjustments in the marketing of fruits and vegetables. Units of sale are larger on heavier loads and this means fewer transactions between shipper and receiver. Heavier loads also demand more careful scheduling of purchases by receivers and wholesalers to meet their requirements. In addition, buyers and sellers probably will bargain harder as more will be at stake in the heavier loaded shipment.

The demand for fan cars for loading probably will increase. Refrigerator car lines and origin carriers may expect shippers to become more critical in accepting cars placed for loading. The refrigerator car lines and delivering carriers may expect some increase in car detention at destination markets, especially for the heavier loaded shipments unloaded over a period of days on team tracks. Increased detention will, of course, be offset, in turn, by a decrease in the number of refrigerator cars required to move a given quantity of commodities in heavier loads.

Delivering carriers may also expect some increase in container breakage and damage. The absolute amount of damage per car probably will increase -- more containers are in heavier loaded shipments to get damaged. And damage will likely be somewhat greater in shipments of commodities or containers susceptible to crushing from overhead weight. Unless receivers taking team track delivery of heavier loads "step down" the loads after each partial unloading of the shipment, we may expect to see an increase in breakage and damage from upsetting of stacks in partly unloaded cars during normal yard switching.

Refrigerator car lines and carriers may also expect more ice consumption for the heavier loaded shipments, as the greater quantity of commodities requires more ice for cooling than a lighter load. Detention of cars containing heavier loads for longer periods during unloading probably will result in more frequent re-icings, especially during periods of hot weather.

But if shippers and receivers use heavier loading wisely, we may expect the most important thing of all -- an overall reduction in the transportation costs for several commodities. This reduction may, in turn, enable some shippers to gain access to marginal markets not previously accessible to them.

Most important so far as the rail carriers are concerned, heavier loading may, in the long run, increase their share of the traffic in perishables. Comparisons of carloadings of Florida vegetables during the current shipping season with those for previous seasons, when the per-car rates were not in effect, shows a significant increase in shipments from that State. Lower rates on the heavier loads of peaches from the Southeast last season apparently resulted in an increased share of this traffic to southern carriers. More shippers and receivers will probably use the heavier loads as they gain more experience with the innovation and adjust their buying and selling operations to take advantage of it.

#### What Can Be Done to Get the Most from Heavier Loading?

As with any important marketing or transportation device, heavier loading, if misused, may give disappointing results, in some instances even disastrous. Shippers, carriers, and receivers each can take several important steps to help get the maximum economic benefit from heavier loading.

The shipper should:

1. Ship only a good-quality product in a heavier load. Don't throw in a poor quality product just to make the minimum.
2. Pack the commodity in a good, sturdy container, capable of withstanding the overhead weight of the load as well as the normal transportation hazards.
3. Load carefully, taking care to eliminate as much slack as possible from the load, at the same time providing the necessary load channels, or flues, for adequate ventilation and refrigeration.
4. Specify adequate protective service. Don't skimp on this item, because there is more at stake in the heavier load.
5. Avoid circuitous routing and "holding for market." Shipments should get to market in the shortest possible time.
6. Investigate the opportunities for pooling of shipments with neighboring shippers in order to take advantage of the transportation economies afforded by heavier loading.

The carriers should:

1. See to it that only late-model refrigerator cars in good physical and mechanical condition are furnished to shippers for heavier loading.
2. Provide, to the greatest extent possible, expedited train schedules for the heavier loads and explore all possibilities of further reducing transit time.



3. Provide closer supervision to insure more careful handling of heavier loaded cars, particularly on team tracks at destination markets.
4. Provide adjustable compartmentizers, or other types of permanent load-dividing devices, in refrigerator cars to facilitate their use for mixed shipments and split deliveries, and to minimize loss and damage in terminal switching of partly unloaded cars.

The receiver should:

1. Carefully schedule his buying to provide for prompt unloading and distribution of the heavier loads.
2. Instruct his employees to "step down" the stacks in partly unloaded cars to prevent or minimize container breakage and product damage in the upsetting of unsecured stacks during team track switching.
3. Maintain a careful check on ice in car bunkers in shipments held on team tracks for relatively long periods during unloading and provide enough to insure proper protection of the products.
4. If the market demand at a given time is not sufficient to insure reasonably prompt distribution of a heavier load, joint buying of heavier loaded shipments with another receiver may make it possible for both to take advantage of the transportation economies available through use of heavier loads.

# RECENT CHANGES IN RAIL FREIGHT RATES ON FARM PRODUCTS 1/

Rail freight rates on farm products averaged a little higher in 1958 than in 1957, according to the indexes calculated by the Agricultural Marketing Service (table 10). The rise in the combined index from 136 to 138 (1947-49 = 100) reflects small rate increases on most agricultural commodities authorized by the Interstate Commerce Commission in February 1958. 2/ From 1945 to 1958 the combined index advanced 82 percent.

Table 10.—Annual rail freight rate indexes for selected agricultural commodities, 1945 and 1952-58 1/

(1947-49 = 100)						
Years	Livestock	Meats	Fruits and vegetables	Wheat	Cotton	Combined index
1945	73	72	79	75	78	76
1952	127	127	116	123	124	122
1953	130	130	117	127	128	125
1954	130	130	117	127	128	125
1955	130	130	117	127	125	124
1956	136	136	121	133	120	129
1957	146	144	128	140	119	136
1958	154	136	127	144	121	138

1/ The indexes shown here are based on actual rate levels and reflect rate increases or decreases actually taken by the railroads. Increases were somewhat below those authorized by the Interstate Commerce Commission.

For index numbers 1913-51 and methodology see Methods Used in Computing Rail Freight-Rate Indexes for Farm Products, by Robert B. Reese, U.S. Dept. Agr., AMS-209, issued Oct. 1953, reissued Sept. 1957.

Rail rates for meats and fruits and vegetables declined from 1957 to 1958 in contrast to the overall increase. Rates for meat products averaged 6 percent lower in 1958 than in the preceding year. This reduction was caused by some railroads' introduction of "incentive rates," aimed at regaining the traffic lost to other haulers of farm commodities. These railroads established higher minimum weights per carload for fresh meats and assigned lower rates per 100 pounds to these new minimums on the majority of freight movements used in the index. The reduction in the index for meats contrasts with a 5 percent rise in the index for livestock. Incentive rates for fruits and vegetables introduced by the railroads during the last 18 months also caused a slight decrease in the weighted average rate for that group from 1957 to 1958. 3/

1/ Prepared by Mildred R. DeWolfe, Transportation and Facilities Branch, Agr. Mktg. Serv.

2/ See "Recent Rail Freight Rate Increases," The Marketing and Transportation Situation, Apr. 1958, pp. 14-17, and "Transportation Charges," The Marketing and Transportation Situation, Nov. 1958, pp. 12-14.

3/ See pp. 33-39.



SELECTED NEW PUBLICATIONS

1. "Buying Practices and Food Use of Employee Food Services in Manufacturing Plants," by Rosalind C. Lifquist, U.S. Dept. Agr., Mktg. Res. Rpt. 326, June 1959.
2. "Carnation Prices and Receipts in New York City," by Robert A. Fitzpatrick, U.S. Dept. Agr., AMS-320, June 1959. (Mass. Agr. Expt. Sta. and AMS cooperating.)
3. "Comparison of 2 Methods of Estimating Backfat Thickness in Live Hogs (Human Judgment Versus Ultrasonics)," by Raymond O. Gaarder, U.S. Dept. Agr., AMS-318, June 1959. (Preliminary report.)
4. "Costs of Marketing Appalachian Apples," by Jules V. Powell and John K. Hanes, U.S. Dept. Agr., Mktg. Res. Rpt. 300, Feb. 1959.
5. "Costs of Merchandising Raw Cotton," by B. B. Crumley, Cotton Econ. Res., 1959. (Univ. of Tex. and AMS cooperating.) (Preliminary report.)
6. "Costs of Operating Southern Rice Mills," by Nicholas M. Thuroczy and Woodrow A. Schlegel, U.S. Dept. Agr., Mktg. Res. Rpt. 330, June 1959.
7. "Developments in Marketing Spreads for Agricultural Products in 1958," (Reprinted from Hearings (Part 3) Before the Subcommittee of the Committee on Appropriations, House of Representatives, Eighty-Sixth Congress, First Session), U.S. Dept. Agr., AMS-316, June 1959.
8. "Economic Characteristics of the Florida Chilled Citrus Juice Industry," by Roy L. Lassiter, Jr., and George L. Capel, U.S. Dept. Agr., Mktg. Res. Rpt. 305, Mar. 1959. (Fla. Agr. Expt. Sta. and AMS cooperating.)
9. "Egg and Poultry Statistics Through 1957," Agr. Mktg. Serv., U.S. Dept. Agr., Statis. Bul. 249, May 1959.
10. "Factors Affecting Costs of Wholesale Distribution of Frozen Foods," by H. Wayne Bitting, U.S. Dept. Agr., Mktg. Res. Rpt. 327, June 1959.
11. "Family Purchases of Selected Frozen Fruits and Vegetables," by Robert B. Reese, U.S. Dept. Agr., Mktg. Res. Rpt. 317, Apr. 1959.
12. "Farm-to-Retail Price Spreads for Cheddar Cheese in the South," by Irving Dubov and D. D. MacPherson, U.S. Dept. Agr., Mktg. Res. Rpt. 318, Apr. 1959. (Univ. of Tenn. and AMS cooperating.)
13. "Floral Marketing by Wholesale Growers in New York and Chicago," by Elmer J. Moore, U.S. Dept. Agr., Mktg. Res. Rpt. 323, May 1959.
14. "Integrating Egg Production and Marketing," by Ralph L. Baker, U.S. Dept. Agr., Mktg. Res. Rpt. 332, June 1959.
15. "Interstate Trucking of Frozen Fruits and Vegetables under Agricultural Extension," by James R. Snitzler and Robert J. Byrne, U.S. Dept. Agr., Mktg. Res. Rpt. 316, Mar. 1959. (Farmer Coop. Serv. and AMS cooperating.)
16. "Irrigation as a Low Cost Method of Sewage Disposal for the Poultry Processor," by Frank M. Ross and Humbert Scott Kahle, U.S. Dept. Agr., Mktg. Res. Rpt. 306, Mar. 1959.
17. "Labor Efficiency in Formula Feed Production," by Carl J. Vosloh, Jr., U.S. Dept. Agr., AMS-310, June 1959. (Preliminary report.)
18. "Livestock Auction Markets in the Appalachian Area -- Methods and Facilities," by Clayton F. Brasington, Jr., U.S. Dept. Agr., Mktg. Res. Rpt. 309, Mar. 1959. (Va. and W. Va. Agr. Expt. Stas. and AMS cooperating.)
19. "Marketing Costs and Price Spreads for Eggs, Frying Chickens, and Turkeys Sold in San Francisco," by Leo R. Gray, U.S. Dept. Agr., Mktg. Res. Rpt. 314, Apr. 1959.
20. "Marketing Margins for Sugar," by L. C. Larkin and Alma W. Updike, U.S. Dept. Agr., Mktg. Res. Rpt. 311, Mar. 1959.
21. "Marketing New England Poultry: 2. Economies of Scale in Chicken Processing," by George B. Rogers and Edwin T. Bardwell, N.H. Agr. Expt. Sta. Bul. 459, Apr. 1959. (AMS cooperating.)
22. "Number - Size - and Location of Egg Assemblers," by Fred L. Faber and John R. Pedersen, U.S. Dept. Agr., AMS-311, May 1959.
23. "Pricing Eggs in Central Markets," by Norris T. Pritchard, U.S. Dept. Agr., AMS-287, Jan. 1959.
24. "Refrigerated Storage of Cranberries," by S.M. Ringel, J. Kaufman, and M.J. Jaffe, U.S. Dept. Agr., Mktg. Res. Rpt. 312, Mar. 1959.
25. "The Location and Cost of Strawberry Production," by Carleton C. Dennis, Calif. Agr. Expt. Sta. Mimeo Rpt. 217, Mar. 1959. (Giannini Foundation of Agr. Econ. and AMS cooperating.)
26. "Use of Cotton Fiber Tests by United States Cotton Shippers," by C. Curtis Cable, Jr., Alonzo Metcalf, and members of the Southern Regional Cotton Marketing Research Committee, South. Coop. Series Bul. 62, June 1959. (Agr. Expt. Stas. of Ala., Ariz., Ark., Ga., La., Miss., Mo., N. Mex., N.C., S.C., Tenn., and Tex., and AMS cooperating.)
27. "Vegetable Prices and Market Structure in Southeastern North Carolina," by A. D. Seale, Jr., R. A. King, and L. C. Martin, N.C. Agr. Expt. Sta. Tech. Bul. 134, Aug. 1958. (N.C. Agr. Expt. Sta., and AMS cooperating.)
28. "What Makes Farmers' Prices," by Wayne Dexter, U.S. Dept. Agr., Agr. Inform. Bul. 204, Apr. 1959.
29. "A Study of Some of the Factors Affecting the Grade and Relationships of Fresh and Processed Vegetables: IV. Whole Kernel Sweet Corn for Canning and Freezing," by Wilbur A. Gould, Thomas M. Crawford, Walter N. Brown, and A. P. Sidwell, Ohio Agr. Expt. Sta. Res. Bul. 826, Jan. 1959. (Ohio Agr. Expt. Sta., and AMS cooperating.)

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Table 11.- Farm food products: Retail cost and farm value, April-June 1959, January-March 1959, April-June 1958, and 1947-49 average <sup>1/</sup>

Product <sup>2/</sup>	Retail unit	Retail cost						Net farm value <sup>3/</sup>					
		April-June 1959		January-March 1959		April-June 1958		April-June 1959		January-March 1959		April-June 1958	
		1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket <sup>6/</sup> .....		1,036.25	1,042.18	51,084.69	940.09	-1	-4	402.30	5/408.19	5/446.16	466.02	-1	-10
Meat products .....		283.83	286.39	5/297.42	256.08	-1	-5	155.33	5/154.84	5/173.53	170.90	7/	-10
Dairy products .....		192.28	194.49	191.56	169.28	-1	7/	84.11	5/87.53	83.84	91.66	-4	7/
Poultry and eggs .....	Average quantities purchased	79.66	90.81	5/95.50	117.01	-12	-17	45.11	5/56.07	5/61.00	80.69	-20	-26
Bakery and cereal products	per urban												
All ingredients .....	vege-earner and clerical-	161.26	160.77	159.40	121.96	7/	1	28.03	5/28.03	5/30.87	34.97	0	-9
Grain .....		---	---	---	---	---	---	20.99	5/20.83	5/22.89	24.96	1	-8
All fruits and vegetables ...	worker	232.84	222.38	252.13	184.68	5	-8	70.33	5/63.53	5/76.90	60.93	11	-8
Fresh fruits and vegetables	family	135.53	125.54	158.84	103.91	8	-15	47.76	5/41.87	5/59.52	42.91	14	-20
Fresh vegetables .....	in 1952	69.89	68.83	80.61	53.17	2	-13	24.20	21.55	5/27.02	22.97	12	-10
Processed fruits and vegetables .....		97.34	96.84	93.29	---	1	4	23.07	5/21.66	5/17.38	---	7	33
Fats and oils .....		42.78	43.77	45.03	52.21	-2	-5	11.59	5/10.98	5/12.68	19.84	6	-9
Miscellaneous products .....		43.61	43.57	43.65	38.87	7/	7/	7.30	7.16	5/7.34	7.03	2	-1
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Choice grade) .....	Pound	83.5	83.0	82.3	68.5	1	1	53.0	5/52.2	5/53.0	48.5	2	0
Lamb (Choice grade) .....	Pound	72.1	69.0	73.4	63.9	4	-2	40.6	36.8	42.7	44.2	10	-5
Pork (retail cuts) .....	Pound	58.2	59.1	66.2	59.4	-2	-12	29.7	29.6	5/39.3	39.7	7/	-24
Butter .....	Pound	74.2	74.5	73.7	79.4	7/	1	51.4	5/51.5	50.4	59.3	7/	2
Cheese, American process .....	Pound	58.1	58.1	58.1	52.6	0	0	27.4	28.4	27.4	32.0	-4	0
Ice cream .....	Pint	29.7	29.6	29.7	---	7/	0	8/5.5	8/5.5	8/5.4	---	0	2
Milk, evaporated .....	14 1/2 ounce can	15.2	15.2	15.1	13.7	0	1	6.1	6.4	6.0	7.1	-5	2
Milk, fluid .....	Quart	24.2	24.6	24.1	20.1	-2	7/	10.2	10.8	10.2	10.6	-6	0
Chickens, frying, ready-to-cook	Pound	41.9	43.3	5/48.3	---	-3	-13	21.9	23.7	5/27.8	---	-8	-21
Eggs .....	Dozen	44.4	54.7	55.0	66.7	-19	-19	26.8	5/36.6	5/38.0	48.0	-27	-29
Bread, white													
All ingredients .....	Pound	19.7	19.6	19.2	13.5	1	3	2.8	2.8	3.1	3.3	0	-10
Wheat .....	Pound	---	---	---	---	---	---	2.3	2.3	2.5	2.7	0	-8
Crackers, soda .....	Pound	29.2	29.2	29.2	---	0	0	3.5	3.5	3.8	---	0	-8
Corn flakes .....	12 ounces	25.6	25.6	25.4	17.1	0	1	2.5	2.5	3.4	3.2	0	-26
Corn meal .....	Pound	13.0	12.9	12.8	11.8	1	2	2.5	2.6	3.5	3.6	-4	-29
Flour, white .....	5 pounds	54.9	54.9	55.6	48.4	0	-1	17.3	5/17.5	19.2	21.0	2	-7
Roller oats <sup>10/</sup> .....	18 ounces	20.4	20.4	20.3	14.5	0	7/	3.6	3.6	3.7	4.9	0	-3
Apples <sup>11/</sup> .....	Pound	15.3	13.3	18.5	11.9	15	-17	3.3	10/3.9	10/4.6	4.3	-15	-28
Grapefruit .....	Each	12/12.0	11.9	12/14.0	8.5	1	-14	12/2.2	2.3	5/12/3.8	1.4	-4	-42
Lemons .....	Pound	18.5	19.2	18.7	17.7	-4	-1	4.9	4.6	5.0	5.7	7	-2
Oranges .....	Dozen	64.2	62.2	76.0	46.6	3	-16	23.2	20.9	32.4	12.6	11	-28
Beans, green .....	Pound	26.3	29.3	25.0	21.1	-10	5	10.0	13.3	10.1	9.3	-25	-1
Cabbage .....	Pound	8.9	9.8	10.1	6.9	-9	-12	1.8	2.2	2.3	1.9	-18	-22
Carrots .....	Pound	14.3	14.5	13.9	11.1	-1	3	3.3	2.7	3.4	4.0	22	-3
Celery .....	Pound	13.1	13.9	19.5	---	-6	-33	3.5	3.0	7.9	---	17	-56
Lettuce .....	Head	15.0	17.6	18.5	14.5	-15	-19	4.3	5.9	6.1	6.3	-27	-30
Onions .....	Pound	14.6	12.7	11.8	8.4	15	24	5.6	5.9	4.2	3.7	-5	33
Potatoes .....	10 pounds	69.5	53.9	75.6	51.9	29	-8	26.2	11.6	5/23.6	25.6	126	11
Sweetpotatoes .....	Pound	14.3	14.0	17.6	11.6	2	-19	4.9	4.7	6.5	4.8	4	-25
Tomatoes .....	Pound	32.4	33.2	39.7	---	-2	-18	10.0	13.3	14.0	---	-25	-29
Orange juice, canned .....	46 ounce can	48.7	47.1	36.9	---	3	32	19.9	5/17.9	7.3	---	11	173
Peaches, canned .....	No. 2-1/2 can	36.4	35.9	33.3	31.5	1	8	6.1	5/6.1	6.0	5.3	0	2
Beans with pork, canned .....	16 ounce can	15.1	15.1	15.1	---	0	0	2.5	2.2	3.1	---	14	-19
Corn, canned .....	No. 303 can	19.5	18.9	17.5	16.7	3	11	2.3	2.3	2.4	2.7	0	-4
Peas, canned .....	No. 303 can	20.7	20.9	20.9	21.4	-1	-1	3.0	3.0	3.1	3.0	0	-3
Tomatoes, canned .....	No. 303 can	15.7	15.8	18.0	14.2	-1	-13	2.4	2.4	2.3	2.6	0	4
Orange juice concentrate, frozen	6 ounce can	24.8	25.9	26.7	---	-4	-7	11.4	9.6	8.2	---	19	39
Strawberries, frozen .....	10 ounces	25.8	26.2	26.5	---	-2	-3	6.2	6.1	4.8	---	2	29
Beans, green, frozen <sup>10/</sup> .....	9 ounces	22.7	22.9	23.2	---	-1	-2	4.3	4.3	4.4	---	0	-2
Peas, frozen .....	10 ounces	19.9	20.0	19.4	---	7/	3	3.1	3.1	3.2	---	0	-3
Dried beans (navy) .....	Pound	17.3	17.2	18.2	19.9	1	-5	7.2	6.4	8.9	9.7	13	-19
Dried prunes .....	Pound	40.0	39.3	33.2	23.1	2	20	17.9	17.9	5/9.8	8.8	0	83
Margarine, colored .....	Pound	27.3	28.7	29.7	39.7	-3	-6	7.1	6.6	7.6	12.2	8	-7
Peanut butter .....	Pound	55.8	56.0	54.6	---	7/	2	20.1	19.1	19.2	---	5	5
Salad dressing .....	Pint	37.8	37.8	37.8	37.8	0	0	6.5	5/6.5	7.0	10.0	0	-7
Vegetable shortening .....	3 pounds	88.1	90.6	95.3	105.6	-3	-8	25.8	23.8	27.5	46.2	8	-6
Corn sirup .....	24 ounces	26.4	26.4	25.8	---	0	2	3.1	2.8	3.1	---	11	0
Sugar .....	5 pounds	56.6	56.8	56.0	48.4	7/	1	20.1	20.1	5/20.1	19.4	0	0

<sup>1/</sup> The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

<sup>2/</sup> Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

<sup>3/</sup> Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

<sup>4/</sup> Preliminary estimates.

<sup>5/</sup> Most retail-cost figures for Jan.-Mar. 1959 have been revised; figures in other columns revised as indicated.

<sup>6/</sup> Sum of product groups may differ slightly from market-basket total because of rounding of averages.

<sup>7/</sup> Less than 0.5 percent.

<sup>8/</sup> Farm values of cream and milk only.

<sup>9/</sup> See table 14, p. 45.

<sup>10/</sup> See tables 15 and 16, p. 46.

<sup>11/</sup> See table 17, p. 47.

<sup>12/</sup> 2-month average



Table 12.- Farm food products: Farm-retail spread and farmer's share of the retail cost, April-June 1959, January-March 1959, April-June 1958, and 1947-49 average <sup>1/</sup>

Product 2/	Retail unit	Farm-retail spread 3/				Farmer's share						
		Apr.-June 1959	Jan.-Mar. 1959	Apr.-June 1958	1947-49 average	Percentage change from -		Apr.-June 1959	Jan.-Mar. 1959	Apr.-June 1958	1947-49 average	
		4/	5/	1953		Jan.-Mar. 1959	Apr.-June 1958	4/	1959	1958		
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent	
Market basket 6/		(	633.95	633.99	5/638.53	474.07	7/	-1	39	39	41	50
Meat products		(	128.50	131.55	5/123.89	85.18	-2	4	55	5/54	58	67
Dairy products		(	108.17	106.91	107.72	77.62	1	7/	44	45	44	54
Poultry and eggs	Average quantities purchased	(	34.55	34.74	5/34.50	36.32	-1	7/	57	5/62	5/64	69
Bakery and cereal products	per urban wage-cerner and clerical-worker	(	133.23	132.74	5/128.53	86.99	7/	4	17	17	19	29
All ingredients	family in 1952	(	87.74	83.57	5/99.32	61.00	5	-12	35	5/33	5/37	41
Grain		(	45.69	47.28	5/53.59	30.20	-3	-15	35	31	34	43
Processed fruits and vegetables		(	74.27	75.18	5/75.91	—	-1	-2	24	22	19	—
Fats and oils		(	31.19	32.79	5/32.35	32.37	-5	-4	27	25	28	38
Miscellaneous products		(	36.31	36.41	5/36.31	31.84	7/	0	17	16	17	18
			Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef (Choice grade)	Pound	:	30.5	30.8	5/29.3	20.0	-1	2	63	5/63	5/64	71
Lamb (Choice grade)	Pound	:	31.5	32.2	30.7	19.7	-2	3	56	53	58	69
Pork (retail cuts)	Pound	:	28.5	29.5	5/26.9	19.7	-3	6	51	50	5/59	67
Butter	Pound	:	22.8	23.0	23.3	20.1	-1	-2	69	69	68	75
Cheese, American process	Pound	:	30.7	29.7	30.7	20.6	3	0	47	49	47	61
Ice cream	Pint	:	24.2	24.1	24.3	—	7/	7/	19	19	18	—
Milk, evaporated	14 1/2 ounce can	:	9.1	8.8	9.1	6.6	3	0	40	42	40	52
Milk, fluid	Quart	:	14.0	13.8	13.9	9.5	1	1	42	44	42	53
Chickens, frying, ready-to-cook	*Pound	:	20.0	19.6	5/20.5	—	2	-2	52	5/55	5/58	—
Eggs	Dozen	:	17.6	18.1	5/17.0	18.7	-3	4	60	5/67	5/69	72
Bread, white		:										
All ingredients	Pound	:	16.9	16.8	16.1	10.2	1	5	14	14	16	24
Wheat	Pound	:	—	—	—	—	—	—	12	12	13	20
Crackers, soda	Pound	:	25.7	25.7	25.4	—	0	1	12	12	13	—
Corn flakes	12 ounces	:	23.1	23.1	22.0	13.9	0	5	10	10	13	19
Corn meal	Pound	:	10.5	10.3	9.3	8.2	2	13	19	20	27	31
Flour, white	5 pounds	:	37.1	37.4	36.4	27.4	-1	2	32	32	35	43
Rolls oats 9/	18 ounces	:	16.8	16.8	16.6	9.6	0	1	18	18	18	34
Apples 10/	Pound	:	12.0	9.4	5/13.9	7.6	28	-14	22	5/29	5/25	36
Grapefruit	Each	:	11/9.3	9.6	5/11/10.2	7.1	2	-4	11/18	19	5/11/27	16
Lemons	Pound	:	13.6	14.6	13.7	12.0	-7	-1	26	24	27	32
Oranges	Dozen	:	41.0	41.3	43.6	34.0	-1	-6	36	34	43	27
Beans, green	Pound	:	16.3	16.0	14.9	11.8	2	9	38	45	40	44
Cabbage	Pound	:	7.1	7.6	7.8	5.0	-7	-9	20	22	23	28
Carrots	Pound	:	11.0	11.8	10.5	7.1	-7	5	23	19	24	36
Celery	Pound	:	9.6	10.9	11.6	—	-12	-17	27	5/22	41	—
Lettuce	Head	:	10.7	11.7	12.4	8.2	-9	-14	29	5/34	33	43
Onions	Pound	:	9.0	6.8	7.6	4.7	32	18	38	5/46	36	44
Potatoes	10 pounds	:	43.3	42.3	5/52.0	26.3	+2	-17	38	22	5/31	49
Sweetpotatoes	Pound	:	9.4	9.3	11.1	6.8	1	-15	34	34	37	41
Tomatoes	Pound	:	22.4	19.9	25.7	—	13	-13	31	40	35	—
Orange juice, canned	46 ounce can	:	28.8	29.2	29.6	—	-1	-3	41	38	20	—
Peaches, canned	No. 2-1/2 can	:	30.3	29.8	27.8	26.2	2	9	17	17	18	17
Beans with pork, canned	16 ounce can	:	12.6	12.9	12.0	—	-2	5	17	15	21	—
Corn, canned	No. 303 can	:	17.2	16.6	15.1	14.0	4	14	12	12	14	16
Peas, canned	No. 303 can	:	17.7	17.9	17.3	18.4	-1	-1	14	14	15	14
Tomatoes, canned	No. 303 can	:	13.3	13.4	15.7	11.6	-1	-15	15	15	13	18
Orange juice concentrate, frozen	6 ounce can	:	13.4	16.3	18.5	—	-18	-28	46	37	31	—
Strawberries, frozen	10 ounces	:	19.6	20.1	21.7	—	-2	-10	24	23	18	—
Beans, green, frozen 9/	9 ounces	:	18.4	18.6	18.8	—	-1	-2	19	19	19	—
Peas, frozen	10 ounces	:	16.8	16.9	16.2	—	-1	4	16	16	16	—
Dried beans (navy)	Pound	:	10.1	10.8	9.3	10.2	-6	9	42	37	49	49
Dried prunes	Pound	:	22.1	21.4	5/23.4	14.3	3	-6	45	46	5/30	38
Margarine, colored	Pound	:	20.7	22.1	22.1	27.5	-6	-6	26	23	26	31
Peanut butter	Pound	:	35.7	36.9	35.4	—	-3	1	36	34	35	—
Salad dressing	Pint	:	31.3	31.3	30.8	27.8	0	2	17	17	19	26
Vegetable shortening	3 pounds	:	62.3	66.8	67.8	59.4	-7	-8	29	26	29	44
Corn sirup	24 ounces	:	23.3	23.6	22.7	—	-1	3	12	11	12	—
Sugar	5 pounds	:	36.5	36.7	5/35.9	29.0	-1	2	36	35	36	40

<sup>1/</sup> The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

<sup>2/</sup> Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

<sup>3/</sup> The farm-retail spread is the difference between the retail cost and the net farm value, table on opposite page.

<sup>4/</sup> Preliminary estimates.

<sup>5/</sup> Most farm-retail spread figures for Jan.-Mar. 1959 have been revised; figures in other columns revised as indicated.

<sup>6/</sup> Sum of product groups may differ slightly from market-basket total because of rounding of averages.

<sup>7/</sup> Less than 0.5 percent.

<sup>8/</sup> See table 14, p. 45.

<sup>9/</sup> See tables 15 and 16, p. 46.

<sup>10/</sup> See table 17, p. 47.

<sup>11/</sup> 2-month average.

Table 13.- Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, April-June 1959 1/

Product 2/	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket 3/			1,036.25	---	---	402.30	633.95	39
Meat products			283.83	---	---	155.33	128.50	55
Dairy products			192.28	---	---	84.11	108.17	44
Poultry and eggs		Average quantities purchased	79.66	---	---	45.11	34.55	57
Bakery and cereal products	Farm produce equivalent to products bought by urban families	per urban wage-earner and clerical-worker family in 1952	161.26	---	---	28.03	133.23	17
All ingredients			---	24.07	3.08	20.99	---	13
Grain			---	---	---	---	---	---
All fruits and vegetables			232.84	---	---	70.83	162.01	30
Fresh fruits and vegetables			135.50	---	---	47.76	87.74	35
Fresh vegetables			69.89	---	---	24.20	45.69	35
Processed fruits and vegetables			97.34	---	---	23.07	74.27	24
Fats and oils			42.78	---	---	11.59	31.19	27
Miscellaneous products			43.61	---	---	7.30	36.31	17
			Cents	Cents	Cents	Cents	Cents	Percent
Beef (Choice grade)	2.16 lb. Choice grade cattle	Pound	83.5	58.7	5.7	53.0	30.5	63
Lamb (Choice grade)	2.36 lb. lamb	Pound	72.1	47.8	7.2	40.6	31.5	56
Pork (retail cuts)	2.13 lb. hogs	Pound	58.2	34.3	4.6	29.7	28.5	51
Butter	Cream and whole milk	Pound	74.2	---	---	51.4	22.8	69
Cheese, American process	Milk for American cheese	Pound	58.1	---	---	27.4	30.7	47
Ice cream	Cream and milk	Pint	29.7	---	---	4/5.5	24.2	19
Milk, evaporated	Milk for evaporating	14-1/2 ounce can	15.2	---	---	6.1	9.1	40
Milk, fluid	Wholesale fluid milk	Quart	24.2	---	---	10.2	14.0	42
Chickens, frying, ready-to-cook	1.37 lb. broilers	Pound	41.9	---	---	21.9	20.0	52
Eggs	1.03 doz.	Dozen	44.4	---	---	26.8	17.6	60
Bread, white								
All ingredients	Wheat and other ingredients	Pound	19.7	---	---	2.8	16.9	14
Wheat	.894 lb. wheat	Pound	---	2.6	.3	2.3	---	12
Crackers, soda	1.40 lb. wheat	Pound	29.2	4.0	.5	3.5	25.7	12
Corn flakes	1.57 lb. white corn	12 ounces	25.6	3.3	.8	2.5	23.1	10
Corn meal	1.34 lb. white corn	Pound	13.0	2.8	.3	2.5	10.5	19
Flour, white	7.0 lb. wheat	5 pounds	54.9	20.3	2.5	17.8	37.1	32
Polled oats 6/	2.31 lb. oats	18 ounces	20.4	4.3	.7	3.6	16.8	18
Apples 1/	1.08 lb. apples	Pound	15.3	---	---	3.3	12.0	22
Grapefruit 8/	1.04 grapefruit	Each	12.0	---	---	2.2	9.8	18
Lemons	1.04 lb. lemons	Pound	18.5	---	---	4.9	13.6	26
Oranges	1.04 doz. oranges	Dozen	64.2	---	---	23.2	41.0	36
Beans, green	1.09 lb. snap beans	Pound	26.3	---	---	10.0	16.3	38
Cabbage	1.10 lb. cabbage	Pound	8.9	---	---	1.8	7.1	20
Carrots	1.06 lb. carrots	Pound	14.3	---	---	3.3	11.0	23
Celery	1.11 lb. celery	Pound	13.1	---	---	3.5	9.6	27
Lettuce	1.41 lb. lettuce	Head	15.0	---	---	4.3	10.7	29
Onions	1.06 lb. onions	Pound	14.6	---	---	5.6	9.0	38
Potatoes	10.42 lb. potatoes	10 pounds	69.5	---	---	26.2	43.3	38
Sweetpotatoes	1.12 lb. sweetpotatoes	Pound	14.3	---	---	4.9	9.4	34
Tomatoes	1.18 lb. tomatoes	Pound	32.4	---	---	10.0	22.4	31
Orange juice, canned	5.83 lb. Fla. oranges for canning	46 ounce can	48.7	---	---	19.9	28.8	41
Peaches, canned	1.89 lb. Calif. cling	No. 2-1/2 can	36.4	---	---	6.1	30.3	17
Beans with pork, canned	.35 lb. Mich. dry beans	16 ounce can	15.1	---	---	2.5	12.6	17
Corn, canned	2.49 lb. sweet corn	No. 303 can	19.5	---	---	2.3	17.2	12
Peas, canned	.69 lb. peas for canning	No. 303 can	20.7	---	---	3.0	17.7	14
Tomatoes, canned	1.84 lb. tomatoes for processing	No. 303 can	15.7	---	---	2.4	13.3	15
Orange juice concentrate, frozen	3.05 lb. Fla. oranges for frozen concentrated juice	6 ounce can	24.8	---	---	11.4	13.4	46
Strawberries, frozen	.51 lb. strawberries for processing	10 ounces	25.8	---	---	6.2	19.6	24
Beans, green, frozen 6/	.79 lb. beans for processing	9 ounces	22.7	---	---	4.3	18.4	19
Peas, frozen	.70 lb. peas for freezing	10 ounces	19.9	---	---	3.1	16.8	16
Dried beans (navy)	1.00 lb. Mich. dry beans	Pound	17.3	---	---	7.2	10.1	42
Dried prunes	.97 lb. dried prunes	Pound	40.0	---	---	17.9	22.1	45
Margarine, colored	Soybeans, cottonseed, and milk	Pound	27.8	---	---	7.1	20.7	26
Peanut butter	1.77 lb. peanuts	Pound	55.8	---	---	20.1	35.7	36
Salad dressing	Cottonseed, soybeans, sugar, and eggs	Pint	37.8	---	---	6.5	31.3	17
Vegetable shortening	Soybeans and cottonseed	3 pounds	88.1	---	---	25.8	62.3	29
Corn sirup	1.90 lb. corn	24 ounces	26.4	3.9	.8	3.1	23.3	12
Sugar	36.79 lb. sugar beets	5 pounds	56.6	21.2	1.1	9/20.1	9/36.5	9/36

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ Market basket total may differ from sum of product group totals because of rounding of averages.

4/ Includes farm value of cream and milk only.

5/ See table 14, p. 45.

6/ See tables 15 and 16, p. 46.

7/ See table 17, p. 47.

8/ 2-month average.

9/ Net farm value adjusted for Government payments to producer was 24.4 cents, farm-retail spread adjusted for Government processor tax was 33.8 cents, farmer's share of retail cost based on adjusted farm value was 43 percent.

Preliminary estimates.



Table 14.--Chickens, frying (ready-to-cook): Retail price, farm value, farm-retail spread, and farmer's share of retail price, 1949-59

(Revision of table 62, page 113, of "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741. Retail prices for 1959 are quarterly averages of United States average monthly prices published by the Bureau of Labor Statistics; those for 1958 and earlier years are comparable with U.S. average prices now published by the BLS. The BLS did not publish a U.S. average for retail prices of ready-to-cook frying chickens based on prices in 46 cities until January 1959.)

Year and quarter	Retail price per pound	Farm value 1/	Farm-retail spread	Farmer's share	Year and quarter	Retail price per pound	Farm value 1/	Farm-retail spread	Farmer's share
	Cents	Cents	Cents	Percent		Cents	Cents	Cents	Percent
1950 .....	57.0	37.4	19.6	66	1954 .....	54.2	32.1	22.1	59
1951 .....	59.7	39.0	20.7	65	Jan.-Mar. ....	53.5	33.1	20.5	62
1952 .....	60.0	39.7	20.3	66	Apr.-June ....	53.9	33.5	20.4	62
1953 .....	58.5	37.0	21.5	63	July-Sept. ....	49.4	27.5	21.9	56
1954 .....	52.8	31.6	21.2	60	Oct.-Dec. ....				
1955 .....	54.8	34.6	20.2	63					
1956 .....	47.8	26.9	20.9	56	1955 .....				
1957 .....	46.7	25.9	20.8	55	Jan.-Mar. ....	54.5	36.3	18.3	66
1958 .....	46.1	25.5	20.6	55	Apr.-June ....	57.9	37.7	20.2	65
					July-Sept. ....	56.5	35.9	20.6	64
					Oct.-Dec. ....	50.1	28.6	21.5	57
1949 .....									
Jan.-Mar. ....									
Apr.-June ....	59.7	38.2	21.5	64	1956 .....				
July-Sept. ....	58.7	38.6	20.1	66	Jan.-Mar. ....	49.4	29.2	20.2	59
Oct.-Dec. ....	56.9	37.1	19.8	65	Apr.-June ....	48.5	28.4	20.1	59
					July-Sept. ....	48.5	27.0	21.5	56
1950 .....					Oct.-Dec. ....	44.9	23.1	21.8	51
Jan.-Mar. ....	52.3	35.2	17.1	67					
Apr.-June ....	57.8	38.2	19.6	66					
July-Sept. ....	61.3	41.4	19.9	68	1957 .....				
Oct.-Dec. ....	56.7	34.9	21.8	62	Jan.-Mar. ....	46.8	26.0	20.8	56
					Apr.-June ....	47.4	26.9	20.5	57
					July-Sept. ....	48.6	27.5	21.1	57
1951 .....					Oct.-Dec. ....	43.8	23.0	20.8	53
Jan.-Mar. ....	59.8	39.5	20.3	66					
Apr.-June ....	61.1	40.7	20.4	67					
July-Sept. ....	60.6	40.2	20.4	66	1958 .....				
Oct.-Dec. ....	57.5	35.5	22.0	62	Jan.-Mar. ....	47.6	28.2	19.4	59
					Apr.-June ....	48.3	27.6	20.7	57
					July-Sept. ....	46.3	24.7	21.6	53
1952 .....					Oct.-Dec. ....	42.1	21.4	20.7	51
Jan.-Mar. ....	60.2	39.4	20.8	65					
Apr.-June ....	56.6	36.2	20.4	64					
July-Sept. ....	60.9	41.8	19.1	69	1959 .....				
Oct.-Dec. ....	62.2	41.3	20.9	66	Jan.-Mar. ....	43.3	23.7	19.6	55
					Apr.-June ....	41.9	21.9	20.0	52
					July-Sept. ....				
1953 .....					Oct.-Dec. ....				
Jan.-Mar. ....	59.9	38.2	21.7	64					
Apr.-June ....	58.0	37.2	20.8	64					
July-Sept. ....	58.9	38.0	20.9	65					
Oct.-Dec. ....	57.1	34.7	22.4	61					

1/ Payment to farmer for 1.37 pounds live commercial broilers.

Table 15.--Rolled oats: Retail price, farm value, farm-retail spread, and farmer's share of retail price, 1919-58

(Revision of table 71, page 119 of "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741. Data were revised because of change in the size of package from 20 to 18 ounces.)

Year	Retail price per 18-ounce package	Farm value 1/	Farm- retail spread	Farmer's share	Year	Retail price per 18-ounce package	Farm value 1/	Farm- retail spread	Farmer's share
	Cents	Cents	Cents	Percent		Cents	Cents	Cents	Percent
1919 .....	9.8	4.0	5.8	41	1939 .....	8.1	1.7	6.4	21
1920 .....	12.1	4.5	7.6	37	1940 .....	8.2	1.9	6.3	23
1921 .....	11.2	2.1	9.1	19	1941 .....	8.2	2.1	6.1	26
1922 .....	9.9	2.1	7.8	21	1942 .....	9.8	2.7	7.1	28
1923 .....	9.9	2.4	7.5	24	1943 .....	9.9	3.7	6.2	37
1924 .....	10.0	2.7	7.3	27	1944 .....	10.7	4.3	6.4	40
1925 .....	10.4	2.6	7.8	25	1945 .....	11.8	3.9	7.9	33
1926 .....	10.3	2.2	8.1	21	1946 .....	11.9	4.5	7.4	38
1927 .....	10.1	2.6	7.5	26	1947 .....	13.2	5.4	7.8	41
1928 .....	10.1	2.8	7.3	28	1948 .....	15.5	5.4	10.1	35
1929 .....	10.0	2.5	7.5	25	1949 .....	14.9	3.9	11.0	26
1930 .....	9.8	2.2	7.6	22	1950 .....	14.7	4.3	10.4	29
1931 .....	9.1	1.5	7.6	16	1951 .....	16.0	4.8	11.2	30
1932 .....	8.3	1.1	7.2	13	1952 .....	16.4	4.7	11.7	29
1933 .....	6.5	1.5	5.0	23	1953 .....	16.6	4.4	12.2	27
1934 .....	7.7	2.4	5.3	31	1954 .....	16.8	4.5	12.3	27
1935 .....	8.5	2.3	6.2	27	1955 .....	17.3	3.9	13.4	23
1936 .....	9.2	2.0	7.2	22	1956 .....	17.5	3.9	13.6	22
1937 .....	9.0	2.3	6.7	26	1957 .....	19.8	4.0	15.8	20
1938 .....	8.3	1.5	6.8	18	1958 .....	20.3	3.6	16.7	18

1/ Payment to farmer for 2.56 pounds of oats less value of byproducts.

Table 16.--Beans, green, frozen: Retail price, farm value, farm-retail spread, and farmer's share of retail price, 1953-58

(Revision of table 98, page 133 of "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741. Data were revised because of change in size of package from 10 ounces to 9 ounces.)

Year	Retail price per 9-ounce package	Farm value 1/	Farm-retail spread	Farmer's share
	Cents	Cents	Cents	Percent
1953 .....	21.9	4.4	17.5	20
1954 .....	22.1	4.5	17.6	20
1955 .....	21.8	4.4	17.4	20
1956 .....	21.0	4.3	16.7	20
1957 .....	21.6	4.5	17.1	21
1958 .....	23.1	4.4	18.7	19

1/ Payment to farmer for 0.71 pound of beans for freezing.



Table 17.--Apples: Retail price, farm value, farm-retail spread, and farmer's share of retail price, 1935-59

(Revision of table 75, page 123 of "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741. Revision resulted from changes in the Agricultural Marketing Service estimates of prices received by farmers for apples. The AMS revisions were caused by changes in the point in the marketing process at which apples are priced in some States.)

Year and quarter	Retail price per pound	Farm value 1/	Farm-retail spread	Farmer's share	Year and quarter	Retail price per pound	Farm value 1/	Farm-retail spread	Farmer's share
	Cents	Cents	Cents	Percent		Cents	Cents	Cents	Percent
1935 .....	5.7	1.6	4.1	28	1951 .....				
1936 .....	5.6	1.8	3.8	32	Jan.-Mar. ...	10.6	3.1	7.5	29
1937 .....	5.9	2.0	3.9	34	Apr.-June ...	11.1	2.7	8.4	24
1938 .....	4.6	1.3	3.3	28	July-Sept. ...	11.3	4.1	7.2	36
1939 .....	4.7	1.5	3.2	32	Oct.-Dec. ...	9.8	4.1	5.7	42
1940 .....	5.0	1.6	3.4	32					
1941 .....	5.2	1.8	3.4	35	1952 .....				
1942 .....	6.6	2.6	4.0	39	Jan.-Mar. ...	11.7	4.6	7.1	39
1943 .....	10.4	4.7	5.7	45	Apr.-June ...	16.9	5.9	11.0	35
1944 .....	10.8	5.4	5.4	50	July-Sept. ...	16.3	5.2	11.1	32
1945 .....	12.1	5.7	6.4	47	Oct.-Dec. ...	13.7	5.6	8.1	41
1946 .....	12.9	6.1	6.8	47					
1947 .....	12.3	5.0	7.3	41	1953 .....				
1948 .....	11.4	3.9	7.5	34	Jan.-Mar. ...	14.9	6.0	8.9	40
1949 .....	12.1	4.1	8.0	34	Apr.-June ...	17.7	6.3	11.4	36
1950 .....	11.6	3.9	7.7	34	July-Sept. ...	16.7	5.9	10.8	35
1951 .....	10.7	3.5	7.2	33	Oct.-Dec. ...	13.5	5.7	7.8	42
1952 .....	14.7	5.3	9.4	36					
1953 .....	15.7	6.0	9.7	38	1954 .....				
1954 .....	15.3	5.5	9.3	36	Jan.-Mar. ...	14.7	5.6	9.1	38
1955 .....	15.1	5.1	10.0	34	Apr.-June ...	17.1	5.6	11.5	33
1956 .....	15.1	4.8	10.3	32	July-Sept. ...	16.3	5.4	10.9	33
1957 .....	16.9	5.3	11.6	31	Oct.-Dec. ...	13.2	5.3	7.9	40
1958 .....	15.5	4.1	11.4	26					
					1955 .....				
1947 .....					Jan.-Mar. ...	14.1	5.3	8.8	38
Jan.-Mar. ....	12.5	5.6	6.9	45	Apr.-June ...	17.1	5.5	11.6	32
Apr.-June ....	14.4	5.8	8.6	40	July-Sept. ...	17.0	5.1	11.9	30
July-Sept. ....	11.6	4.4	7.2	38	Oct.-Dec. ...	12.4	4.4	8.0	35
Oct.-Dec. ....	10.9	4.2	6.7	39					
					1956 .....				
1948 .....					Jan.-Mar. ...	13.6	4.2	9.4	31
Jan.-Mar. ....	10.6	3.1	7.5	29	Apr.-June ...	16.6	4.3	12.3	26
Apr.-June ....	11.8	3.2	8.6	27	July-Sept. ...	16.6	5.3	11.3	32
July-Sept. ....	11.8	4.5	7.3	38	Oct.-Dec. ...	13.7	5.5	8.2	40
Oct.-Dec. ....	11.5	4.8	6.7	42					
					1957 .....				
1949 .....					Jan.-Mar. ...	15.3	8	9.5	38
Jan.-Mar. ....	13.8	5.6	8.2	41	Apr.-June ...	20.1	6.4	13.7	32
Apr.-June ....	15.5	4.6	10.9	30	July-Sept. ...	19.7	5.3	14.4	27
July-Sept. ....	10.5	3.7	6.8	35	Oct.-Dec. ...	12.4	3.8	8.6	31
Oct.-Dec. ....	8.5	2.6	5.9	31					
					1958 .....				
1950 .....					Jan.-Mar. ...	13.5	3.2	10.3	24
Jan.-Mar. ....	9.6	3.1	6.5	32	Apr.-June ...	18.5	4.6	13.9	25
Apr.-June ....	13.2	4.3	8.9	33	July-Sept. ...	17.7	4.9	12.8	28
July-Sept. ....	13.7	4.7	9.0	34	Oct.-Dec. ...	12.1	3.8	8.3	31
Oct.-Dec. ....	9.7	3.6	6.1	37					
					1959 .....				
					Jan.-Mar. ...	13.3	3.9	9.4	29
					Apr.-June ...	15.3	3.3	12.0	22

1/ Payment to farmer for 1.08 pounds of apples.

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